STIC Search Report
EIC 1700

STIC Database Tracking Number: 131770

TO:	From:
Eisa Elhilo Location: REM 9A60 Art Unit : 1751 March 13, 2006 Case Serial Number: 10/715839	Usha Shrestha Location: EIC 1700 REMSEN 4B28 Phone: 571/272-3519 usha.shrestha@uspto.gov

Search Notes

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FILE 'REGISTRY' ENTERED AT 14:17:51 ON 10 MAR 2006

=> d his ful

     FILE 'HCAPLUS' ENTERED AT 10:03:05 ON 10 MAR 2006
L1             1 SEA ABB=ON  PLU=ON  US20040226111/PN
                 D SCAN
                 SEL RN

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L2             2 SEA ABB=ON  PLU=ON  (64784-13-0/BI OR 95230-12-9/BI)
                 D SCAN

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L3               STR

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L6            50 SEA SSS SAM L5
L7               SCR 1839
L8            50 SEA SSS SAM L5 AND L7
L9               SCR 2043 OR 1918
L10           50 SEA SSS SAM L5 AND L7 NOT L9

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L12              STR
L13              STR

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L16              SCR 1918
L17           50 SEA SSS SAM L11 AND L14 NOT L16
L18            8 SEA SSS SAM L12 AND L14
L19           11 SEA SSS SAM L13 AND L14
L20            1 SEA ABB=ON  PLU=ON  PHTHALOCYANINE/CN
L21         2353 SEA ABB=ON  PLU=ON  13560/RID
L22           20 SEA ABB=ON  PLU=ON  L21 AND (CU OR MG OR FE OR ZN OR
                 AL OR MN OR CA OR BA)/ELS
L23              STR L13
L24            2 SEA SSS SAM L23 AND L14
L25        26686 SEA SSS FUL L11 AND L14 NOT L16
L26           72 SEA SSS FUL L12 AND L14
L27           15 SEA SSS FUL L23 AND L14

□□□□ SAV L25 ELH839/A
                 SAV L26 ELH839A/A
                 SAV L27 ELH839B/A

     FILE 'HCAPLUS' ENTERED AT 11:43:57 ON 10 MAR 2006
L28           44 SEA ABB=ON  PLU=ON  L22
L29           26 SEA ABB=ON  PLU=ON  L26
L30            9 SEA ABB=ON  PLU=ON  L27
L31           78 SEA ABB=ON  PLU=ON  (L28 OR L29 OR L30)
L32        10869 SEA ABB=ON  PLU=ON  L25
L33           70 SEA ABB=ON  PLU=ON  L32 AND (HAIR? OR KERAT?)
L34            1 SEA ABB=ON  PLU=ON  L31 AND (HAIR? OR KERAT?)
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L35            4 SEA ABB=ON  PLU=ON  L33 AND COSMET?
L36           30 SEA ABB=ON  PLU=ON  L33 AND DYE?
L37           35 SEA ABB=ON  PLU=ON  (L34 OR L35 OR L36)
L38           23 SEA ABB=ON  PLU=ON  L31 AND (DYE? OR COSMET?)
L39           57 SEA ABB=ON  PLU=ON  L37 OR L38
L40              QUE ABB=ON  PLU=ON  COSMETIC? OR SHAMPOO? OR SKINCARE?
                 OR SCALPCARE? OR HAIRCARE? OR (SKIN# OR DERMA? OR
                 SCALP? OR KERATIN? OR HAIR#)(2A)(CARE? OR TREAT? OR
                 CONDITION?)
L41            7 SEA ABB=ON  PLU=ON  L40 AND L39
L42           25 SEA ABB=ON  PLU=ON  L31 AND (DYE? OR COLOR? COLOUR? OR
                 PIGMENT?)
L43           35 SEA ABB=ON  PLU=ON  L33 AND (DYE? OR COLOR? COLOUR? OR
                 PIGMENT?)
L44           62 SEA ABB=ON  PLU=ON  L39 OR L41 OR L42 OR L43
L45           51 SEA ABB=ON  PLU=ON  L44 AND P/DT
L46           11 SEA ABB=ON  PLU=ON  L44 NOT L45
L47            7 SEA ABB=ON  PLU=ON  L46 NOT (2003-2005)/PY
L48           41 SEA ABB=ON  PLU=ON  L45 AND (1907-2002)/PRY,AY
L49           48 SEA ABB=ON  PLU=ON  L47 OR L48


=> d que l49
L11             STR

Hy 1      C=O       4 A +
          2 3

NODE ATTRIBUTES:
CHARGE  IS *+     AT   4
NSPEC   IS RC     AT   4
DEFAULT MLEVEL IS ATOM
GGCAT   IS PCY  UNS  AT   1
DEFAULT ECLEVEL IS LIMITED
ECOUNT  IS M1 N  AT   1

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS   4

STEREO ATTRIBUTES: NONE
L12             STR
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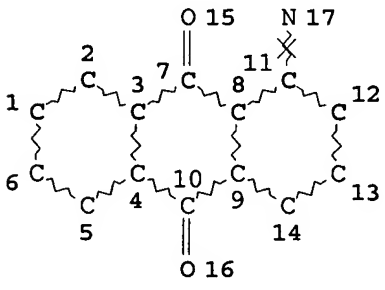


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NODE ATTRIBUTES:
CHARGE  IS *+     AT  20
NSPEC   IS RC     AT  17
NSPEC   IS RC     AT  20
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED
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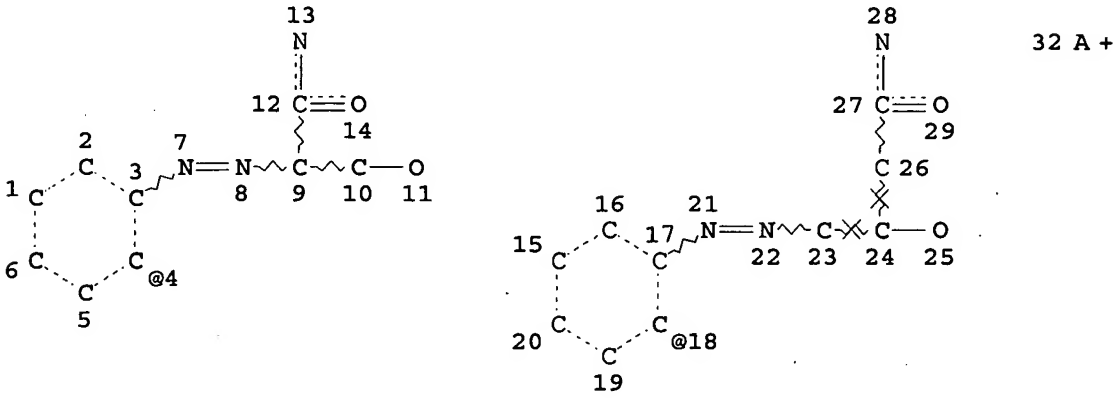
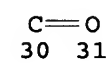
GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 20

STEREO ATTRIBUTES: NONE
L14 SCR 2040
L16 SCR 1918
L21 2353 SEA FILE=REGISTRY ABB=ON PLU=ON 13560/RID
L22 20 SEA FILE=REGISTRY ABB=ON PLU=ON L21 AND (CU OR MG OR FE OR ZN OR AL OR MN OR CA OR BA)/ELS
L23 STR





G1 33

VAR G1=4/18
NODE ATTRIBUTES:
CHARGE IS *+ AT 32
NSPEC IS RC AT 23
NSPEC IS RC AT 24
NSPEC IS RC AT 26
NSPEC IS RC AT 32
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RING(S) ARE ISOLATED OR EMBEDDED
NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE
L25 26686 SEA FILE=REGISTRY SSS FUL L11 AND L14 NOT L16
L26 72 SEA FILE=REGISTRY SSS FUL L12 AND L14
L27 15 SEA FILE=REGISTRY SSS FUL L23 AND L14
L28 44 SEA FILE=HCAPLUS ABB=ON PLU=ON L22
L29 26 SEA FILE=HCAPLUS ABB=ON PLU=ON L26
L30 9 SEA FILE=HCAPLUS ABB=ON PLU=ON L27
L31 78 SEA FILE=HCAPLUS ABB=ON PLU=ON (L28 OR L29 OR L30)
L32 10869 SEA FILE=HCAPLUS ABB=ON PLU=ON L25
L33 70 SEA FILE=HCAPLUS ABB=ON PLU=ON L32 AND (HAIR? OR KERAT?)
L34 1 SEA FILE=HCAPLUS ABB=ON PLU=ON L31 AND (HAIR? OR KERAT?)

```
L35          4 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND COSMET?
L36         30 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND DYE?
L37         35 SEA FILE=HCAPLUS ABB=ON  PLU=ON  (L34 OR L35 OR L36)
L38         23 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 AND (DYE? OR
               COSMET?)
L39         57 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L37 OR L38
L40            QUE  ABB=ON  PLU=ON  COSMETIC? OR SHAMPOO? OR SKINCARE?
                OR SCALPCARE? OR HAIRCARE? OR (SKIN# OR DERMA? OR SCAL
               P? OR KERATIN? OR HAIR#)(2A)(CARE? OR TREAT? OR CONDITI
               ON?)
L41          7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L40 AND L39
L42         25 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L31 AND (DYE? OR
               COLOR? COLOUR? OR PIGMENT?)
L43         35 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L33 AND (DYE? OR
               COLOR? COLOUR? OR PIGMENT?)
L44         62 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L39 OR L41 OR L42 OR
               L43
L45         51 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44 AND P/DT
L46         11 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L44 NOT L45
L47          7 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L46 NOT (2003-2005)/PY

L48         41 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L45 AND (1907-2002)/PR
               Y,AY
L49         48 SEA FILE=HCAPLUS ABB=ON  PLU=ON  L47 OR L48


=> fil hcap
FILE 'HCAPLUS' ENTERED AT 14:18:10 ON 10 MAR 2006

=> d l49 1-48 ibib abs hitstr hitind

L49  ANSWER 1 OF 48  HCAPLUS  COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER:         2006:100738  HCAPLUS
DOCUMENT NUMBER:          144:198849
TITLE:                    Novel dosage form comprising modified-release
                          and immediate-release active ingredients
INVENTOR(S):              Vaya, Navin; Karan, Rajesh Singh; Sadanand,
                          Sunil; Gupta, Vinod Kumar
PATENT ASSIGNEE(S):       India
SOURCE:                   U.S. Pat. Appl. Publ., 49 pp., Cont.-in-part
                          of U.S. Ser. No. 630,446.
                          CODEN: USXXCO
DOCUMENT TYPE:            Patent
LANGUAGE:                 English
FAMILY ACC. NUM. COUNT:   2
PATENT INFORMATION:

     PATENT NO.           KIND   DATE        APPLICATION NO.          DATE
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     US 2006024365         A1    20060202    US 2005-134633
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     US 2004096499         A1    20040520    US 2003-630446
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PRIORITY APPLN. INFO.:                       IN 2002-MU697       A
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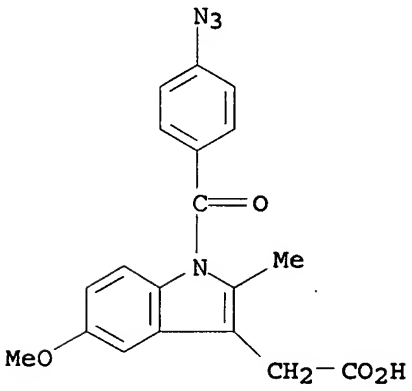
IN 2003-MU80	A	
		2003
		0122
IN 2003-MU82	A	
		2003
		0122
US 2003-630446	A2	
		2003
		0729

AB A dosage form comprising of a high dose, high solubility active ingredient as modified release and a low dose active ingredient as immediate release where the weight ratio of immediate release active ingredient and modified release active ingredient is from 1:10 to 1:15000 and the weight of modified release active ingredient per unit is from 500 mg to 1500 mg; a process for preparing the dosage form. Tablets containing 10 mg sodium pravastatin and 1000 mg niacin were prepared The release of sodium pravastatin after 24 h was 67.7%, and the release of niacin after 1 h was 84.1%.

IT **62851-43-8**, Zidometacin **64228-81-5**, Atracurium besylate **96946-42-8**, Cisatracurium besilate **106861-44-3**, Mivacurium chloride **126443-96-7**, Napavin
(novel dosage form comprising modified-release and immediate-release active ingredients)

RN 62851-43-8 HCAPLUS

CN 1H-Indole-3-acetic acid, 1-(4-azidobenzoyl)-5-methoxy-2-methyl- (9CI) (CA INDEX NAME)



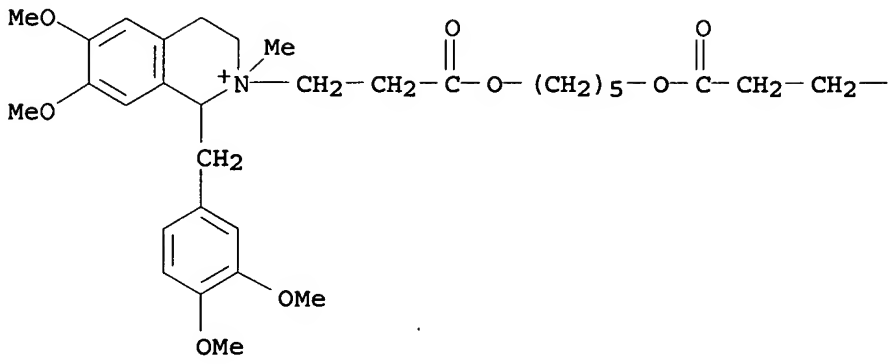
RN 64228-81-5 HCAPLUS

CN Isoquinolinium, 2,2'-[1,5-pentanediylbis[oxy(3-oxo-3,1-propanediyl)]]bis[1-[(3,4-dimethoxyphenyl)methyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-2-methyl-, dibenzenesulfonate (9CI) (CA INDEX NAME)

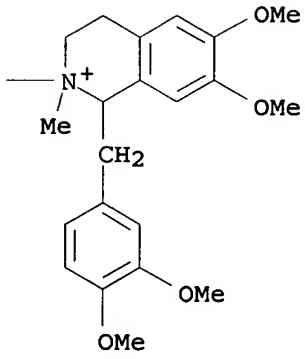
CM 1

CRN 64228-79-1
CMF C53 H72 N2 O12

PAGE 1-A

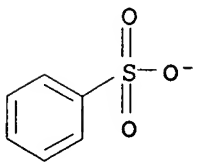


PAGE 1-B



CM 2

CRN 3198-32-1
CMF C6 H5 O3 S



RN 96946-42-8 HCAPLUS
CN Isoquinolinium, 2,2'-[1,5-pentanediylbis[oxy(3-oxo-3,1-propanediyl)]]bis[1-[(3,4-dimethoxyphenyl)methyl]-1,2,3,4-tetrahydro-6,7-dimethoxy-2-methyl-, (1R,1'R,2R,2'R)-,

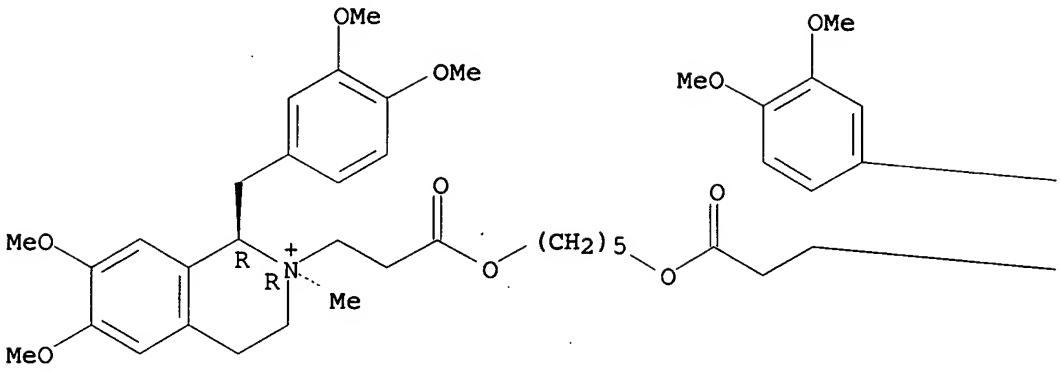
dibenzenesulfonate (9CI) (CA INDEX NAME)

CM 1

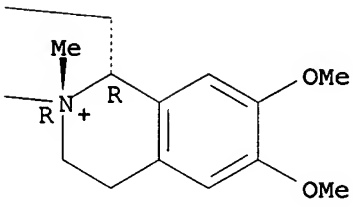
CRN 96946-41-7
CMF C53 H72 N2 O12

Absolute stereochemistry.

PAGE 1-A

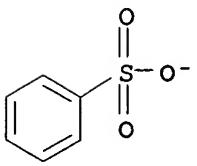


PAGE 1-B



CM 2

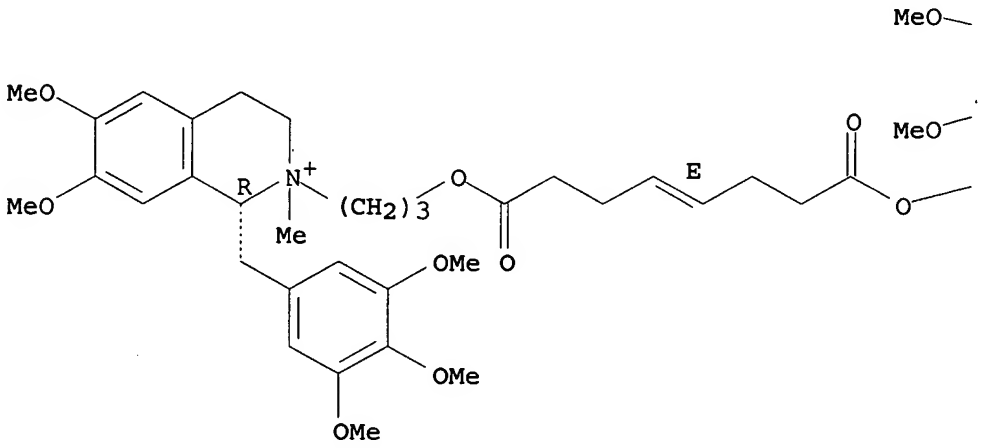
CRN 3198-32-1
CMF C6 H5 O3 S



RN 106861-44-3 HCAPLUS
CN Isoquinolinium, 2,2'-[[(4E)-1,8-dioxo-4-octene-1,8-diyl]bis(oxy-3,1-propanediyl)]bis[1,2,3,4-tetrahydro-6,7-dimethoxy-2-methyl-1-[(3,4,5-trimethoxyphenyl)methyl]-, dichloride, (1R,1'R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.
Double bond geometry as shown.

PAGE 1-A



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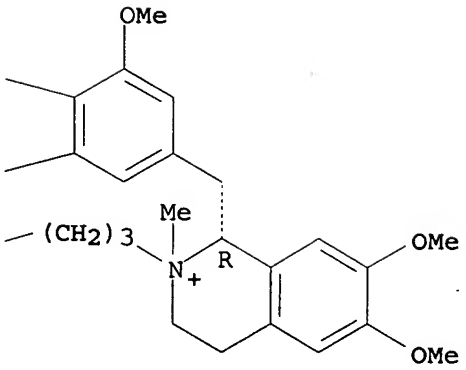
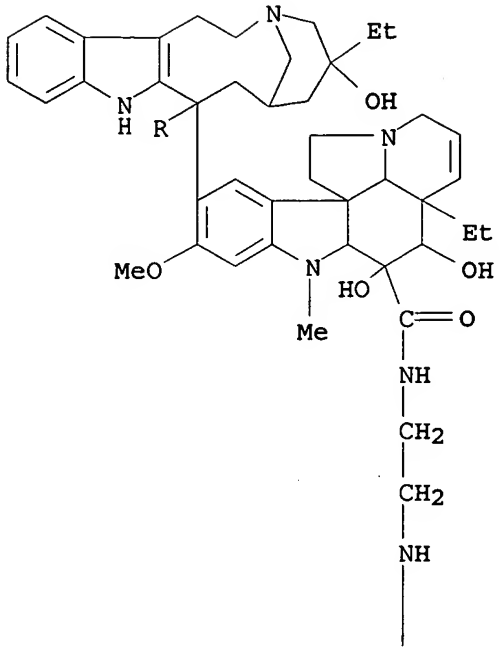
PAGE 1-B



RN 126443-96-7 HCAPLUS
CN Vincaleukoblastine, 3-[[[2-[(4-azido-2-nitrophenyl)amino]ethyl]amino]carbonyl]-O4-deacetyl-3-de(methoxycarbonyl)- (9CI) (CA INDEX NAME)

PAGE 1-A



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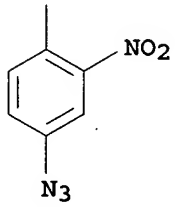
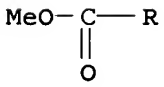




INCL 424468000
CC 63-6 (Pharmaceuticals)
IT **Hair** preparations
(growth stimulants; novel dosage form comprising modified-release and immediate-release active ingredients)
IT **Dyes**
(tellurapyrylium; novel dosage form comprising modified-release and immediate-release active ingredients)
IT 56219-57-9, Arildone 56281-36-8, Motretinide 56290-94-9, Medroxalol 56383-05-2, Zindotrine 56391-55-0, Octazamide 56391-57-2, Netilmicin sulfate 56420-45-2, Epirubicin 56430-99-0, Flumecinol 56470-64-5, Anordrin 56605-16-4D,

Spiromustine, di-Ph derivs. 56611-65-5, Oxagrelate 56689-42-0, Repromicin 56689-44-2, Nitramisole hydrochloride 56717-18-1, Isotiquimide 56741-95-8, Bropirimine 56784-39-5, Ozolinone 56796-20-4, Cefmetazole 56917-29-4, Fluretofen 56980-93-9, Celiprolol 56995-20-1, Flupirtine 57010-32-9, Tiapamil hydrochloride 57041-67-5, Desflurane 57067-46-6, Isamoxole 57109-90-7, Clorazepate dipotassium 57149-07-2, Naftopidil 57166-13-9, Napactadine hydrochloride 57248-88-1, Pamidronate disodium 57262-94-9, Setiptiline 57285-09-3, Folliculostatin 57381-26-7, Irsogladine 57432-61-8, Methylergonovine maleate 57441-90-4, Nivimedone sodium 57540-79-1, Nisbuterol mesylate 57645-05-3, Sermetacin 57653-26-6, Fenobam 57666-60-1, Nitrafudam hydrochloride 57726-65-5, Nufenoxole 57773-63-4, Triptorelin 57773-65-6, Deslorelin 57775-22-1, Etoperidone hydrochloride 57781-15-4, Halopredone 57801-81-7, Brotizolam 57808-65-8, Closantel 57982-78-2, Budipine 57998-68-2, Diaziquone 58019-50-4, Menabitan hydrochloride 58019-65-1, Nabazenil 58066-85-6, Miltefosine 58152-03-7, Isepamicin 58167-78-5, Tandamine hydrochloride 58239-89-7, Moxazocine 58261-91-9, Mefenidil 58473-74-8, Cinromide 58493-49-5, Olvanil 58497-00-0, Procinonide 58503-79-0, Meobentine sulfate 58524-83-7, Ciprocinonide 58525-82-9, Azatyrosine 58581-89-8, Azelastine 58712-69-9, Traxanox 58795-03-2, Apalcillin sodium 58934-46-6, Lorcainide hydrochloride 58944-73-3, Sinefungin 58957-92-9, Idarubicin 58970-76-6, Ubenimex 59017-64-0, Ioxaglic acid 59018-13-2, Ioxaglate meglumine 59070-06-3, Ticarcillin cresyl sodium 59122-46-2, Misoprostol 59160-29-1, Lidofenin 59170-23-9, Bevantolol 59179-95-2, Lorzafone 59227-89-3, Laurocapram 59263-76-2, Meptazinol hydrochloride 59333-90-3, Exaprolol hydrochloride 59467-96-8, Midazolam hydrochloride 59497-39-1, Naflocort 59653-73-5, Teroxirone 59703-84-3, Piperacillin sodium 59729-33-8, Citalopram 59733-86-7, Butikacin 59756-39-7, Enolicam sodium 59794-18-2, Paulomycin 59803-98-4, Brimonidine 59804-37-4, Tenoxicam 59831-63-9, Doconazole 59831-64-0, Milenperone 59831-65-1, Halopemide 59917-39-4, Vindesine sulfate 59937-28-9, Malotilate 59954-01-7, Pamatolol sulfate 60019-19-4, Iotetric acid 60050-95-5, Sulfoxamine 60084-10-8, Tiazofurin 60086-22-8, Clopipazan mesylate 60135-22-0, Flumoxonide 60142-96-3, Gabapentin 60166-93-0, Iopamidol 60200-06-8, Clorsulon 60207-31-0, Azaconazole 60209-20-3, Lycetamine 60282-87-3, Gestodene 60325-46-4, Sulprostone 60398-23-4, Iodoamiloride 60400-92-2, Proxicromil 60525-15-7, Zimelidine hydrochloride 60560-33-0, Pinacidil 60569-19-9, Propiverine 60607-34-3, Oxatomide 60607-35-4, Topterone 60628-96-8, Bifonazole 60653-25-0, Orpanoxin 60719-84-8, Amrinone 60719-85-9, Ciprefadol succinate 60762-57-4, Pirlindole 60857-08-1, Prostratin 60925-61-3, Ceforanide 60940-34-3, Ebselen 60976-05-8 61036-62-2, Teicoplanin 61177-45-5, Clavulanate potassium 61220-69-7, Tiopinac 61260-05-7, Prenalterol hydrochloride 61263-35-2, Meteneprost 61270-78-8, Cefonicid sodium 61318-91-0, Sulconazole nitrate 61325-80-2, Flumezapine 61379-65-5, Rifapentine 61380-27-6, Carfentanil citrate 61380-41-4, Lofentanil oxalate 61413-54-5, Rolipram 61444-62-0, Nifluridide 61477-94-9, Pirmenol hydrochloride 61481-30-9, Dicranin 61484-39-7, Pareptide sulfate 61489-71-2, Menotropin 61570-90-9, Tioxidazole 61622-34-2, Cefotiam 61825-94-3, Oxaliplatin 61849-14-7, Epoprostenol sodium 61869-08-7, Paroxetine 62013-04-1, Dirithromycin 62087-72-3, Pentigetide 62134-34-3, Butoprozine hydrochloride 62220-58-0,

Bipenamol hydrochloride 62265-68-3, Quinfamide 62304-98-7, Thymalfasin 62435-42-1, Perfosfamide 62488-57-7 62571-86-2, Captopril 62571-87-3, Minaxolone 62587-73-9, Cefsulodin 62613-82-5, Oxiracetam 62625-19-8, Pirogliride tartrate 62658-63-3, Bopindolol 62666-20-0, Progabide 62732-44-9, Ipidacrine 62816-98-2, Ormaplatin **62851-43-8**, Zidometacin 62893-20-3, Cefoperazone sodium 62928-11-4, Iproplatin 62929-91-3, Procaterol hydrochloride 62973-76-6, Azanidazole 62973-77-7, Parconazole hydrochloride 62989-33-7, Sapropterin 62996-74-1, Staurosporine 63119-27-7, Anitrazafen 63198-97-0, Viroxime 63204-23-9, Oxmetidine hydrochloride 63245-28-3, Etifenin 63251-39-8, Sulfinalol hydrochloride 63269-31-8, Ciramadol 63358-49-6, Aspoxicillin 63534-64-5, Iosulamide meglumine 63585-09-1, Foscarnet sodium 63590-19-2, Balanol 63590-64-7, Terazosin 63612-50-0, Nilutamide 63659-18-7, Betaxolol 63659-19-8, Betaxolol hydrochloride 63675-72-9, Nisoldipine 63774-77-6, Somatomedin B 63941-73-1, Ioglucol 63941-74-2, Ioglucomide 63950-06-1, Esorubicin hydrochloride 64019-93-8, Dipivefrin hydrochloride 64059-66-1, Cetaben sodium 64063-83-8, Picotrin diolamine 64092-48-4, Zomepirac sodium 64211-45-6, Oxiconazole 64221-86-9, Imipenem **64228-81-5**, Atracurium besylate 64318-79-2, Gemeprost 64379-93-7, Cinflumide 64420-40-2, Etibendazole 64461-82-1, Tizanidine hydrochloride 64485-93-4, Cefotaxime sodium 64706-54-3, Bepridil 64808-48-6, Lobenzarit sodium 64872-77-1, Butoconazole nitrate 64924-67-0, Halofuginone hydrobromide 64953-12-4, Moxalactam disodium 65009-35-0, Lidamidine hydrochloride 65043-22-3, Indeloxazine hydrochloride 65052-63-3, Cefetamet 65057-90-1, Talisomycin 65093-40-5, Cytarabine ocfosfate 65141-46-0, Nicorandil 65222-35-7, Pazelliptine 65271-80-9, Mitoxantrone 65277-42-1, Ketoconazole 65322-72-7, Endralazine mesylate 65454-13-9, Lateritin 65473-14-5, Naftifine hydrochloride 65511-42-4, Nantradol hydrochloride 65573-02-6, Impromidine hydrochloride 65646-68-6, Fenretinide 65652-44-0, Pirbuterol acetate 65717-97-7, Disofenin 65807-02-5, Goserelin 65847-85-0, Morniflumate 65886-71-7, Fazarabine 65899-73-2, Tioconazole 65928-58-7, Dienogest 65950-99-4, Pirquinozol 66085-59-4, Nimodipine 66104-22-1, Pergolide 66108-95-0, Iohexol 66148-78-5, Temocillin 66172-75-6, Verofylline 66195-31-1, Ibopamine 66292-52-2, Butilfenin 66292-53-3, Iprofenin 66357-35-5, Ranitidine 66357-59-3, Zantac 66364-74-7, Enpiroline phosphate 66504-75-4, Bicifadine hydrochloride 66537-94-8, Cyproximide 66564-14-5, Cinitapride 66569-27-5, Sparfosate sodium

(novel dosage form comprising modified-release and immediate-release active ingredients)

IT 89672-11-7, Cioteronel 89778-26-7, Toremifene 89786-04-9, Tazobactam 89797-00-2, Iopentol 89943-82-8, Cicletanine 89987-06-4, Tiludronic acid 90055-97-3, Tienoxolol 90182-92-6, Zacopride 90243-66-6, Montirelin 90274-23-0, Zaltidine hydrochloride 90293-01-9, Bifemelane 90357-06-5, Bicalutamide 90729-41-2, Oxodipine 90729-43-4, Ebastine 90733-42-9, Edifolone acetate 90779-69-4, Atosiban 90849-08-4, Oximonam sodium 90850-05-8, Gloximonam 90898-90-1, Oximonam 90996-54-6, Rhizoxin 91077-32-6, Dezinamide 91161-71-6, Terbinafine 91296-86-5, Difloxacin hydrochloride 91296-87-6, Sarafloxacin hydrochloride 91374-21-9, Ropinirole 91406-11-0, Esuprone 91431-42-4, Lonapalene 91524-15-1, Irloxacin 91524-18-4, Azumolene sodium 91587-01-8, Pelretin 91618-36-9,

Ibafloxacin 91714-94-2, Bromfenac 91832-40-5, Cefdinir 92047-76-2, Tetrachlorodecaoxide 92118-27-9, Fotemustine 92236-42-5, Glutapyrone 92339-11-2, Iodixanol 92623-84-2, Pravadoline maleate 92623-85-3, Milnacipran 92665-29-7, Cefprozil 92788-10-8, Rogletimide 92803-82-2, Aphidicolin glycinate 92812-82-3, Fluorodopaf18 92817-10-2, 16-α-Fluoroestradiol 93047-39-3, Etanterol 93135-89-8, Methoxatone 93221-48-8, Levobetaxolol 93390-81-9, Fosphenytoin 93413-69-5, Venlafaxine 93479-97-1, Glimepiride 93738-40-0, Ralitoline 93957-54-1, Fluvastatin 93957-55-2, Fluvastatin sodium 94079-80-8, Cicaprost 94168-98-6, Rifametane 94535-50-9, Levcromakalim 94651-09-9, Cicloprolol 94739-29-4, Lemildipine 94820-09-4, Cadexomer iodine 94841-17-5, Spirapril hydrochloride 95058-81-4, Gemcitabine 95153-31-4, Perindoprilat 95190-13-9, Tetrazolast meglumine 95232-68-1, Tenosal 95233-18-4, Atovaquone 95399-71-6, Fosinoprilat 95522-45-5, Colestimide 95635-55-5, Ranolazine 95671-26-4, Tipentosin hydrochloride 95733-03-2, Daphnodorin A 95734-82-0, Nedaplatin 95847-70-4, Ipsapirone 95896-08-5, Anaritide 96036-03-2, Meropenem 96128-92-6, Clentiazem maleate 96201-88-6, Brequinar sodium 96301-34-7, Atamestane 96346-61-1, Onapristone 96389-68-3, Crisnatol 96392-96-0, Dexormaplatin 96449-05-7, Rispenzepine 96604-21-6, Ocinaplon 96609-16-4, Lifibrol 96736-12-8 96829-58-2, Orlipastat 96892-57-8, Hepsulfam **96946-42-8**, Cisatracurium besilate 97048-13-0, Urofollitropin 97068-30-9, Elsamitrucin 97240-79-4, Topiramate 97322-87-7, Troglitazone 97519-39-6, Ceftibuten 97534-21-9, Merbarone 97548-97-5, Quinelorane hydrochloride 97682-44-5, Irinotecan 97772-98-0, Butedronate tetrasodium 97919-22-7 97938-30-2, Vexibinol 97964-56-2, Lorglumide 98048-97-6, Fosinopril 98079-51-7, Lomefloxacin 98116-53-1, Sulukast 98206-10-1, Flesinoxan 98319-26-7, Finasteride 98383-18-7, Ecomustine 98449-05-9, Butixocort propionate 98569-62-1, Mallotochromene 98631-95-9, Sobuzoxane 99009-20-8, Pyrazoloacridine 99011-02-6, Imiquimod 99107-52-5, Bunaprolast 99149-95-8, Saruplase 99156-66-8, Barmastine 99248-33-6, Seglitide acetate 99258-56-7, Oxamisole 99283-10-0, Molgramostim 99287-30-6, Egualen 99291-25-5, Levodropropizine 99294-94-7, Teriparatide acetate 99464-64-9, Ampiroxicam 99519-84-3, Carboxyamidotriazole 99592-32-2, Sertaconazole 99614-02-5, Ondansetron 99665-00-6, Flomoxef 99705-65-4, Naxagolide hydrochloride 99759-19-0, Tiqueside 99821-44-0, Nasaruplase 100188-33-8, Piridronate sodium 100324-81-0, Lisofylline 100427-26-7, Lercanidipine 100490-36-6, Tosufloxacin 100643-96-7, Indolidan 100981-43-9, Ebrotidine 100986-85-4, Levofloxacin 101001-34-7, Pamicogrel 101246-66-6, Phenserine 101246-68-8, Eptastigmine 101363-10-4, Rufloxacin 101477-55-8, Lomerizine 101526-83-4, Sematilide 101530-10-3, Lanoconazole 101828-21-1, Butenafine 102394-31-0, Otenzepad 102396-24-7, Jasplakinolide 102426-96-0, Paldimycin 102583-46-0, Detirelix acetate 102625-70-7, Pantoprazole 102669-89-6, Saterinone 102670-59-7, Batanopride hydrochloride 102676-47-1, Fadrozole 102767-28-2, Levetiracetam 102822-56-0, Mannostatin A 102908-59-8, Binospirone 102916-21-2, Tigemonam dicholine 103060-53-3, Daptomycin 103222-11-3, Vapreotide 103255-66-9, Pazinaclone 103336-05-6, Ditekiren 103337-74-2, Letrazuril 103379-03-9, Monatepil maleate 103420-77-5, Devazepide 103475-41-8, Tepoxalin 103486-79-9, Belfosdil 103541-15-7, Clausenamide 103577-45-3, Lansoprazole 103614-76-2, Halichondrin B 103628-46-2, Sumatriptan

103745-39-7, Fasudil 103775-10-6, Moexipril 103878-84-8, Lazabemide 103890-78-4, Lacidipine 103909-75-7, 22-Oxacalcitriol 104054-27-5, Atipamezole 104153-37-9, Rilopirox 104227-87-4, Famciclovir 104340-86-5, Leminoprazole 104383-17-7, Sabeluzole 104393-00-2, Pirazmonam sodium 104454-71-9, Ipenoxazone 104456-95-3, Cisconazole 104595-79-1, Anaritide acetate 104713-75-9, Barnidipine 104719-71-3, Lorcinadol 104775-36-2, Ecabapide 104987-11-3, Tacrolimus 105102-18-9, Tibenelast sodium 105102-22-5, Mometasone 105118-12-5, Piroxantrone hydrochloride 105149-04-0, Osaterone 105182-45-4, Fluparoxan 105219-56-5, Apafant 105250-86-0, Ebiratide 105431-72-9, Linopirdine 105462-24-6, Risedronic acid 105567-83-7, Berefrine 105613-48-7, Exametazime 105615-58-5, Oxaunomycin 105687-93-2, Sumarotene 105705-89-3, Vinburnine citrate 105784-61-0, Temafloxacin hydrochloride 105806-65-3, Efegatran 105851-17-0, Fludeoxyglucosef18 105889-45-0, Cefcapene pivoxil 105913-11-9, Plasminogen activator 105920-77-2, Camonagrel 105956-97-6, Clinafloxacin 105979-17-7, Benidipine 106243-16-7, Thioperamide 106266-06-2, Risperdal 106282-98-8, Somalapor 106400-81-1, Lometrexol 106463-17-6, Tamsulosin hydrochloride 106498-99-1, Vintoperol 106516-24-9, Sertindole 106560-14-9, Faropenem 106602-62-4, Amylin 106730-54-5, Olprinone **106861-44-3**, Mivacurium chloride 107000-34-0, Zanoterone 107167-31-7, Lactivicin 107266-08-0, Carvotroline 107361-33-1, Enazadrem 107407-62-5, Nelezaprine maleate 107429-63-0, Lintopride 107703-78-6, Glemanserin 107724-20-9, Epoxymexrenone 107753-78-6, Zafirlukast 107793-72-6, Ioxilan 107868-30-4, Exemestane 107902-67-0, Tazofelone 108073-62-7, Carbazomycin C 108310-20-9, Pirodomast 108609-34-3, Lixazinone sulfate 108612-45-9, Mizolastine 108674-87-9, Sergolexole maleate 108700-03-4, Teludipine hydrochloride 108736-35-2, Lanreotide 108778-82-1, Beractant 108852-90-0, Nemorubicin 108945-35-3, Taprostene

(novel dosage form comprising modified-release and immediate-release active ingredients)

IT 109214-55-3, Libenzapril 109229-58-5, Englitazone 109543-76-2, Romazarit 109636-76-2, Prinomide tromethamine 109837-67-4, Cycloplatam 109889-09-0, Granisetron 110101-66-1, Tirilazad 110140-89-1, Ridogrel 110267-81-7, Amrubicin 110311-27-8, Sulofenur 110347-85-8, Selfotel 110588-56-2, Noberastine 110588-57-3, Saperconazole 110623-33-1, Suritozole 110690-43-2, Emitefur 110703-94-1, Zopolrestat 110845-89-1, Remiprostol 110871-86-8, Sparfloxacin 111011-63-3, Efonidipine 111025-46-8, Pioglitazone 111073-18-8, Nemazoline hydrochloride 111149-90-7, Lodelaben 111212-85-2, Ersofermin 111223-26-8, Ceronapril 111406-87-2, Zileuton 111490-36-9, Zeniplatin 111523-41-2, Enloplatin 111672-14-1, Rocastine hydrochloride 111686-79-4, Remacemide hydrochloride 111753-73-2, Satigrel 111786-07-3, Prinoxodan 111902-57-9, Temocapril 111974-60-8, Ritolukast 111974-69-7, Quetiapine 112018-00-5, Tebufelone 112018-01-6, Bemoradan 112192-04-8, Roxindole 112243-58-0, Gevotroline hydrochloride 112344-52-2, Flobufen 112362-50-2, Dalfopristin 112515-43-2, Topsentin 112522-64-2, Acetyldinaline 112573-73-6, Ecadotril 112733-06-9, Zenarestat 112809-51-5, Letrozole 112856-44-7, Losigamone 112859-71-9, Fluasterone 112885-41-3, Mosapride 112887-68-0, Raltitrexed 112893-26-2, Becliconazole 112922-55-1, Cericlamine 112924-45-5, Sinnabidiol 112964-97-3, Ocfentanil hydrochloride 112965-21-6, Calcipotriene 113082-98-7, Enalkiren 113102-19-5,

Rifamexil 113108-86-4, Suronacrine maleate 113359-04-9, Cefozopran 113378-31-7, Semduramicin 113427-24-0, Epoetin alfa 113471-15-1 113558-15-9, Baohuoside 1 113593-34-3, Flosatidil 113658-85-8, Trombodipine 113662-23-0, Gadobenic acid 113665-84-2, Clopidogrel 113775-47-6, Dexmedetomidine 113806-05-6, Olopatadine 113852-37-2, Cidofovir 113932-41-5, Tematropium methyl sulfate 113957-09-8, Cebaracetam 114030-44-3, Dexpemedolac 114084-78-5, Ibandronic acid 114118-91-1, Tirandalydigin 114285-68-6, Lentinan sulfate 114298-18-9, Zalospirone 114317-44-1, Magainin 2 amide 114432-13-2, Fantofarone 114517-02-1, Fosquidone 114716-16-4, Pemedolac 114798-26-4, Losartan 114977-28-5, Docetaxel 115103-54-3, Tiagabine 115150-59-9, Antagonist G 115256-11-6, Dofetilide 115308-98-0, Tallimustine 115436-72-1, Risedronate sodium 115436-73-2, Ipazilide 115566-02-4, Bistratene A 115575-11-6, Liarozole 115743-28-7, Curdlan sulfate 115762-17-9, Ruzadolane 115956-12-2, Dolasetron 116057-75-1, Idoxifene 116078-65-0, Bidisomide 116287-14-0, Lanperisone 116290-93-8, Hatomamicin 116313-94-1, Nitecapone 116476-13-2, Semotiadil 116523-57-0, Desoxoamiodarone 116644-53-2, Mibefradil 116649-85-5, Ramatroban 116666-63-8, Mibefradil dihydrochloride 116684-92-5, Galdansetron 116818-99-6, Isalsteine 116853-25-9, Ceftuprenam 116907-13-2, Risotilide hydrochloride 117048-59-6, Combretastatin A4 117086-68-7, Ricasetron 117211-03-7, Cefetecol 117268-95-8, Brifentanil hydrochloride 117467-28-4, Cefditoren pivoxil 117523-47-4; Mirfentanil 117545-11-6, Bimakalim 117581-05-2, Serazapine hydrochloride 117827-81-3, Delfaprazine 117857-45-1, Loreclezole 117946-91-5, Luzindole 117976-90-6, Rabeprazole sodium 118072-93-8, Zoledronic acid 118288-08-7, Lafutidine 118292-40-3, Tazarotene 118353-05-2, Carbovir 118395-73-6, Chloroorienticin A 118457-14-0, Nebivolol 118635-52-2, Tilnoprofen arbamel 118909-22-1, Velnacrine maleate 119006-77-8, Flutrimazole 119129-70-3, Ananain 119169-78-7, Epristeride 119257-34-0, Besipirdine 119302-91-9, Rocuronium bromide 119413-54-6, Topotecan hydrochloride 119413-55-7, Elgodipine 119422-08-1 119431-25-3, Eliprodil 119509-26-1, Atpenin B 119514-66-8, Lifarizine 119625-78-4, Terlakiren 119683-68-0, Ferumoxides 119693-74-2, Somenopor 119758-39-3, Maduramicin 119813-10-4, Carzelesin 119817-90-2, Dexloxiglumide 119905-05-4, Delequamine 119914-60-2, Grepafloxacin 120066-54-8, Gadoteridol 120128-20-3, RG 12525 120138-50-3, Quinupristin 120210-48-2, Tenidap 120287-85-6, Cetrorelix 120360-10-3, Batelapine maleate 120373-24-2, Isopropyl unoprostone 120410-24-4, Biapenem 120443-16-5, Verlukast 120444-71-5, Deramciclane 120500-15-4, Leinamycin 120511-73-1, Anastrozole 120551-59-9, Crilvastatin 120635-25-8, Mofegiline hydrochloride 120635-74-7, Cilansetron 120656-93-1, Trefentanil hydrochloride 120685-11-2, Benzoylstaurosporine 120788-07-0, Sulopenem 120824-08-0, Linotroban 120993-53-5, Desirudin 121181-53-1, Filgrastim 121249-14-7, Corticorelin ovine triflutate 121263-19-2, Calphostin C 121281-41-2, Technetium Tc 99 m bicisate 121288-39-9, Loxoribine 121547-04-4, Mirimostim 121650-80-4, Pancopride 121679-13-8, Naratriptan 121749-39-1 121808-62-6, Pidotimod 121929-46-2, Zoniclezole hydrochloride 122312-54-3, Epoetin beta 122341-38-2, Temoporfin 122431-96-3 122535-63-1, α-Citreamicin 122566-70-5, Maniwamycin A 122575-28-4, Naglivan 122647-32-9, Ibutilide fumarate 122841-10-5, Cefoselis 122898-63-9, Phenazinomycin

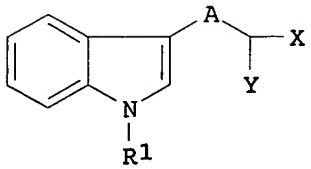
122898-67-3, Itopride 122946-43-4, Telmesteine 122955-18-4, Sibopirdine 123039-93-0, Dihydrexidine 123040-69-7, Azasetron 123072-45-7, Aprosulate sodium 123122-54-3, Candoxatrilat 123122-55-4, Candoxatril 123258-84-4, Itasetron 123308-22-5, Sezolamide 123407-36-3, Arteflene 123447-62-1, Prulifloxacin 123482-22-4, Zatosetron 123482-23-5, Zatosetron maleate 123524-52-7, Azelnidipine 123618-00-8, Fedotozine 123774-72-1, Sargramostim 123830-79-5, Teloxantrone hydrochloride 123948-87-8, Topotecan 124012-42-6, Galocitabine 124423-84-3, Panadiplon 124436-59-5, Pirodavir 124439-07-2, Enadoline hydrochloride 124508-99-2, Sulfinosine 124770-85-0, Cyclobut A 124784-31-2, Erbulozole 124832-26-4, Valaciclovir 124858-35-1, Nadifloxacin 124904-93-4, Ganirelix 124916-54-7, Celikalim 125251-66-3, Arbutamine hydrochloride 125279-79-0, Ersentilide 125472-02-8, Mivazerol 125533-88-2, Mofarotene 125722-16-9, Enofelast 125926-17-2, Sarpogrelate 126062-18-8, Cyclobut G 126100-97-8, Dimiracetam 126297-39-0, Lissoclinamide 7 **126443-96-7**, Napavin 126544-47-6, Ciclesonide 126595-07-1, Propagermanium 126825-36-3, Bertosamil 127000-20-8, Gadobenate dimeglumine 127045-41-4, Pazufloxacin 127294-70-6, Balofloxacin 127304-28-3, Linarotene 127502-06-1, Tetrofosmin 127685-30-7, Seproxetine hydrochloride 127757-45-3, Cyclic HPMPC 127757-91-9, Regramostim 127759-89-1, Lobucavir 127779-20-8, Saquinavir 127785-64-2, Aureobasidin A

(novel dosage form comprising modified-release and immediate-release active ingredients)

L49 ANSWER 2 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:568551 HCAPLUS
DOCUMENT NUMBER: 141:111209
TITLE: Indole derivatives and their uses as **skin treatment** agents
INVENTOR(S): Yokokawa, Yoshihiro; Takada, Keiko
PATENT ASSIGNEE(S): Shiseido Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 40 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 2004196699	A2	20040715	JP 2002-366387	2002 1218 <--
PRIORITY APPLN. INFO.:			JP 2002-366387	2002 1218 <--

OTHER SOURCE(S): MARPAT 141:111209
GI



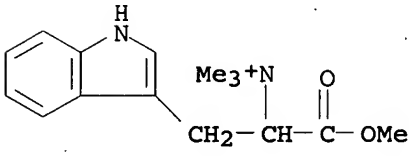
I

AB Indoles I [R1 = H, C1-8 alkyl, Ph, Ph-substituted C1-4 alkyl; Y = N+R2R3R4.B-; R2-R4 = C1-8 alkyl, Ph, Ph-substituted C1-4 alkyl; A = (CH2)n; n = 0-2; X = H, CO2R5; R5 = H, C1-4 alkyl; B = acid anion] or their salts, useful for **cosmetic** or topical prepns., are claimed. Also claimed are antiaging agents, basement membrane treatment agents, and laminin 5 formation stimulators containing the indoles or I (Y = NR6R7, NHR8; R6-R8 = C1-8 alkyl, Ph, Ph-substituted C1-4 alkyl). Tryptophan was treated with MeI to give I (R1 = H, A = CH2, X = CO2-, Y = N+Me3), which was added to a culture medium of human epidermal **keratinocytes** at 0.001% to result in 189% laminin 5 formation based on control.

IT **720663-59-2P**
(indole derivs. and their uses as **skin treatment** agents)

RN 720663-59-2 HCAPLUS

CN 1H-Indole-3-ethanaminium, α-(methoxycarbonyl)-N,N,N-trimethyl- (9CI) (CA INDEX NAME)



IC ICM C07D209-16
ICS A61K007-00; A61K007-025; A61K007-035; A61K007-48; A61K031-4045; A61K031-405; A61P017-00; A61P043-00; C07D209-20

CC 62-4 (Essential Oils and Cosmetics)
Section cross-reference(s): 27, 63

ST indole skin antiaging laminin formation stimulator; **cosmetic** indole antiaging laminin formation stimulator; topical indole quaternary ammonium antiaging

IT Laminins
(5, formation stimulation; indole derivs. and their uses as **skin treatment** agents)

IT **Cosmetics**
(antiaging; indole derivs. and their uses as **skin treatment** agents)

IT Basement membrane
Human
Psophocarpus tetragonolobus
(indole derivs. and their uses as **skin treatment** agents)

IT Drug delivery systems
(topical; indole derivs. and their uses as **skin treatment** agents)

IT 64363-86-6P

(indole derivs. and their uses as **skin treatment** agents)
IT 526-31-8P 17333-56-1P **720663-59-2P** 720663-60-5P
726169-56-8P 726172-24-3P
(indole derivs. and their uses as **skin treatment** agents)
IT 61-54-1, Tryptamine 73-22-3, Tryptophan, reactions 7524-52-9, Tryptophan methyl ester hydrochloride
(indole derivs. and their uses as **skin treatment** agents)

L49 ANSWER 3 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:529211 HCAPLUS
DOCUMENT NUMBER: 141:93966
TITLE: **Hair dyeing** compositions containing a diheteroylarylmethane direct **dye** or its leuco precursor
INVENTOR(S): Guerin, Frederic; Lagrange, Alain
PATENT ASSIGNEE(S): L'oreal, Fr.
SOURCE: Fr. Demande, 51 pp.
CODEN: FRXXBL
DOCUMENT TYPE: **Patent**
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2849371	A1	20040702	FR 2002-16845 <--	2002 1230
EP 1437122	A1	20040714	EP 2003-104983 <--	2003 1226
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
JP 2004210783	A2	20040729	JP 2003-434421 <--	2003 1226
US 2004187229	A1	20040930	US 2003-746501 <--	2003 1229
PRIORITY APPLN. INFO.:			FR 2002-16845 A <--	2002 1230
			US 2003-450358P P	2003 0228

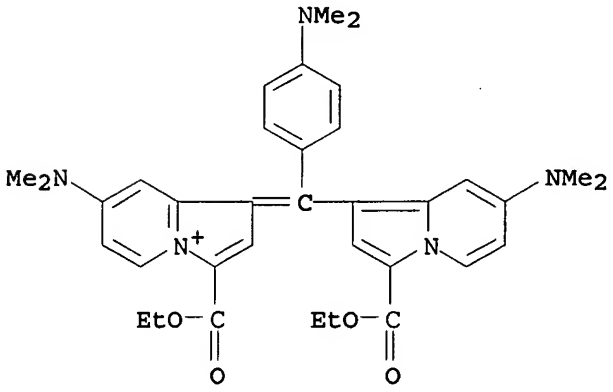
OTHER SOURCE(S): MARPAT 141:93966
AB A **hair dyeing** composition comprises a compound chosen from the direct **dyes** of the diheteroylarylmethane type and its leuco precursors. Thus, a formulation contained

{4-[bis-(2-methyl-1H-indol-3-yl)methylene]cyclohexa-2,5-dienylidene}dimethylammonium chloride 0.427, benzyl alc. 4.0, PEG 6.0, hydroxyethyl cellulose 0.7, alkyl polyglucoside 4.5, phosphate buffer 7, and water qs to 100 g.

IT **371158-83-7 371158-84-8**
(**hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)

RN 371158-83-7 HCAPLUS

CN 1H-Indolizinium, 7-(dimethylamino)-1-[[7-(dimethylamino)-3-(ethoxycarbonyl)-1-indolizinyl][4-(dimethylamino)phenyl]methylene]-3-(ethoxycarbonyl)- (9CI) (CA INDEX NAME)

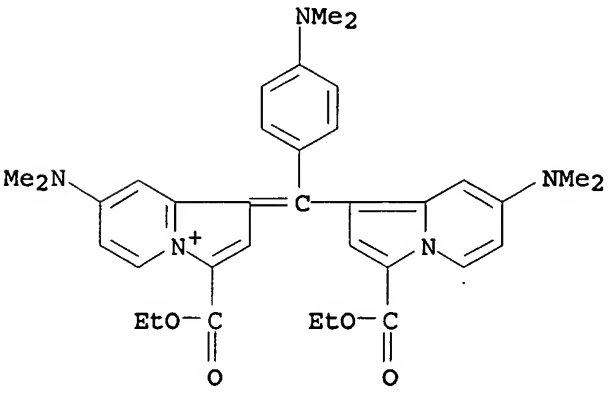


RN 371158-84-8 HCAPLUS

CN 1H-Indolizinium, 7-(dimethylamino)-1-[[7-(dimethylamino)-3-(ethoxycarbonyl)-1-indolizinyl][4-(dimethylamino)phenyl]methylene]-3-(ethoxycarbonyl)-, perchlorate (9CI) (CA INDEX NAME)

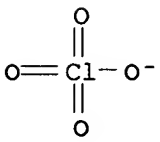
CM 1

CRN 371158-83-7
CMF C35 H40 N5 O4



CM 2

CRN 14797-73-0
CMF Cl O4



IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
ST diheteroylarylmethane direct **dye hair**; leuco precursor diheteroylarylmethane **dye hair**
IT Enzymes, biological studies
(Unicase; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT Azo **dyes**
(acid; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT Phenols, biological studies
(amino; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT Azo **dyes**
Dyes
(cationic; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT Amines, biological studies
(diamines, aromatic; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT Azo **dyes**
Dyes
(direct; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT Anthraquinone **dyes**
Dyes
Hair
Human
Oxidizing agents
(**hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT Bromates
Peroxy acids
Peroxysulfates
(**hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT **Dyes**
(indamine; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)
IT Group IIIA element compounds

(perborates; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)

IT Carboxylic acids, biological studies
(peroxy; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)

IT Amines, biological studies
(phenolic; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)

IT Amines, biological studies
(phenylalkyl, diamines; **hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)

IT 95-55-6D, o-Aminophenol, derivs. 95-70-5, p-Toluenediamine 106-50-3, p-Phenylenediamine, biological studies 106-50-3D, p-Phenylenediamine, derivs. 108-45-2D, m-Phenylenediamine, derivs. 108-46-3D, Resorcinol, derivs. 123-30-8, p-Aminophenol 123-30-8D, p-Aminophenol, derivs. 124-43-6 591-27-5D, m-Aminophenol, derivs. 2088-76-8D, salts 2835-95-2, 5-Amino-2-methylphenol 7722-84-1, Hydrogen peroxide, biological studies 9003-99-0, Peroxidase 9035-73-8, Oxidase 9037-29-0, Oxygenase 14135-12-7 14696-49-2 14696-51-6 14696-52-7 14711-55-8 14776-13-7 15466-15-6 15466-16-7 15481-09-1 15724-52-4 16380-96-4 16380-97-5 16383-51-0 25981-21-9 34266-49-4 34269-60-8 47699-67-2 47771-90-4 47771-98-2 47790-54-5 47797-82-0 47797-84-2 47816-83-1 53812-11-6 53812-29-6 55009-14-8 55302-96-0 59526-51-1 59526-52-2 60414-63-3 61735-38-4 76080-64-3 76120-68-8 80498-15-3, Laccase 84606-92-8 89914-44-3 89914-47-6 90161-61-8 90161-62-9 90161-63-0 90161-64-1 90161-65-2 90161-66-3 90161-71-0 90161-72-1 90161-79-8 90161-80-1 90161-85-6 90161-86-7 90161-91-4 90161-92-5 90161-93-6 90161-94-7 90161-95-8 90161-96-9 90161-97-0 90161-98-1 97628-71-2 97628-72-3 97628-73-4 103928-27-4 103928-28-5 104927-31-3 104927-32-4 107117-76-0 119758-99-5 119759-00-1 120878-97-9 120878-98-0 122839-17-2 131942-35-3 131942-37-5 131942-45-5 131942-46-6 131942-51-3 131942-52-4 131942-54-6 132030-90-1 132054-25-2 150831-83-7 150831-84-8 150831-85-9 150831-86-0 253865-90-6 253865-92-8 253865-94-0 326809-79-4 326809-80-7 366451-86-7 366451-87-8 **371158-83-7** **371158-84-8** 467222-93-1 467222-94-2 714229-15-9 714229-16-0 714229-17-1 714229-18-2 714229-19-3 714229-21-7 714229-22-8 714229-23-9
(**hair dyeing** compns. containing diheteroylarylmethane direct **dye** or its leuco precursor)

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 4 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:512207 HCAPLUS
DOCUMENT NUMBER: 141:76342
TITLE: **Hair dye** compositions containing a tricationic direct **dye**
INVENTOR(S): Lagrange, Alain
PATENT ASSIGNEE(S): L'oreal, Fr.

SOURCE: Fr. Demande, 57 pp.
CODEN: FRXXBL
DOCUMENT TYPE: **Patent**
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
FR 2848838	A1	20040625	FR 2002-16565	20021223
			<--	
FR 2848838	B1	20050311		
EP 1433472	A1	20040630	EP 2003-293290	20031223
			<--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004187227	A1	20040930	US 2003-742801	20031223
			<--	
JP 2004210777	A2	20040729	JP 2003-428263	20031224
			<--	

PRIORITY APPLN. INFO.:
FR 2002-16565 A 20021223
<--
US 2003-468735P P 20030508

OTHER SOURCE(S): MARPAT 141:76342

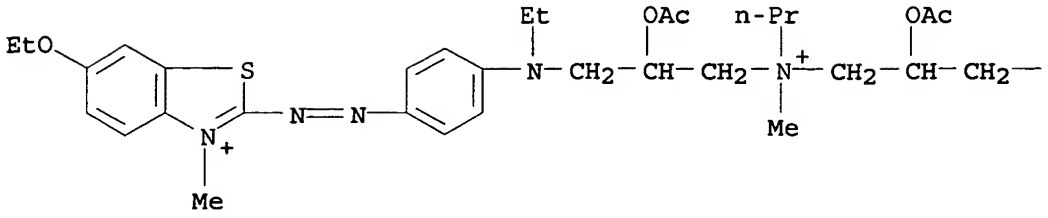
AB The **dyeing** of human **keratin** fibers and more particularly of the human **hair** comprises a direct tricationic **dye** containing e.g., azomethine, phenothiazine, triarylmethane, or xanthene groups. Thus, a formulation contained a tricationic benzothiazolium **dye** 1.06, oleic acid diethanolamide 3, lauric acid 1, ethylene glycol monoethyl ether 5, hydroxyethyl cellulose 2, 2-amino-2-methyl-1-propanol 9.5, and water qs to 100 g.

IT **41681-41-8**
(**hair dye** compns. containing tricationic direct **dye**)

RN 41681-41-8 HCAPLUS

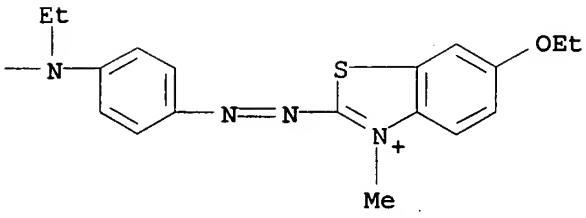
CN Benzothiazolium, 2,2'-[(methylpropyliminio)bis[[2-(acetyloxy)-3,1-propanediyl](ethylimino)-4,1-phenyleneazo]]bis[6-ethoxy-3-methyl-, trichloride (9CI) (CA INDEX NAME)

PAGE 1-A



●3 Cl⁻

PAGE 1-B



IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
ST **hair** tricationic direct **dye**; benzothiazolium tricationic azo **dye hair**
IT Phenols, biological studies
(amino; **hair dye** compns. containing tricationic direct **dye**)
IT Polyelectrolytes
Surfactants
(amphoteric; **hair dye** compns. containing tricationic direct **dye**)
IT Polyelectrolytes
Surfactants
(anionic; **hair dye** compns. containing tricationic direct **dye**)
IT Azo **dyes**
Dyes
Polyelectrolytes
Surfactants
(cationic; **hair dye** compns. containing tricationic direct **dye**)
IT Amines, biological studies
(diamines; **hair dye** compns. containing tricationic direct **dye**)
IT **Dyes**
(direct; **hair dye** compns. containing tricationic direct **dye**)
IT **Hair** preparations
(**dyes**; **hair dye** compns. containing tricationic direct **dye**)
IT Quinones
(**dyes**; **hair dye** compns. containing

tricationic direct **dye**)
IT Anthraquinone **dyes**
Hair
Human
Oxidizing agents
Thickening agents
(**hair dye** compns. containing tricationic direct **dye**)
IT Alcohols, biological studies
(**hair dye** compns. containing tricationic direct **dye**)
IT **Dyes**
(indamine; **hair dye** compns. containing tricationic direct **dye**)
IT Surfactants
(nonionic; **hair dye** compns. containing tricationic direct **dye**)
IT Amines, biological studies
(phenolic; **hair dye** compns. containing tricationic direct **dye**)
IT Amines, biological studies
(phenylalkyl; **hair dye** compns. containing tricationic direct **dye**)
IT Alcohols, biological studies
(polyhydric; **hair dye** compns. containing tricationic direct **dye**)
IT Surfactants
(zwitterionic; **hair dye** compns. containing tricationic direct **dye**)
IT 95-55-6D, o-Aminophenol, derivs. 106-50-3D, p-Phenylenediamine, derivs. 108-45-2D, m-Phenylenediamine, derivs. 108-46-3D, Resorcinol, derivs. 123-30-8D, p-Aminophenol, derivs. 574-93-6D, Phthalocyanine, derivs. 591-27-5D, m-Aminophenol, derivs. 7722-84-1, Hydrogen peroxide, biological studies **41681-41-8** 107004-44-4 107032-39-3
(**hair dye** compns. containing tricationic direct **dye**)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 5 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:411307 HCAPLUS
DOCUMENT NUMBER: 140:411989
TITLE: Use of latent **pigments** for **hair** coloring, composition containing the aforementioned **pigments** and methods for using them
INVENTOR(S): Lagrange, Alain; Kravtchenko, Sylvain; Greaves, Andrew
PATENT ASSIGNEE(S): L'oreal, Fr.
SOURCE: Fr. Demande, 40 pp.
CODEN: FRXXBL
DOCUMENT TYPE: **Patent**
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

FR 2847162	A1	20040521	FR 2002-14535	2002 1120 <--
FR 2847162	B1	20050218		
EP 1426036	A1	20040609	EP 2003-292849	2003 1118 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
US 2004226111	A1	20041118	US 2003-715839	2003 1119 <--
JP 2004168779	A2	20040617	JP 2003-390929	2003 1120 <--
PRIORITY APPLN. INFO.:			FR 2002-14535 A	2002 1120 <--
			US 2003-502655P P	2003 0915

OTHER SOURCE(S): MARPAT 140:411989

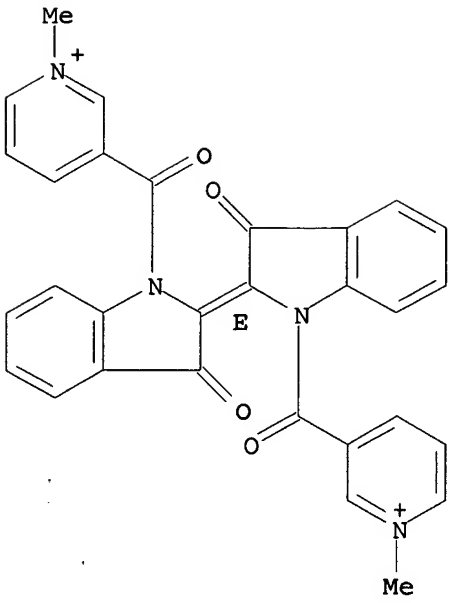
AB A latent, soluble **pigment** for **dyeing** of **keratinous** fibers is disclosed wherein the soluble **pigment** in fibers is transformed into insol. **pigment** in water by chemical, thermal, or photochem. process. The **pigment** has formula A(B)x wherein A is a chromophoric radical, and B an atom of hydrogen or formula (I, MeCOFmYnF'mZ), with Z representing a hydrosolubilizing cation Z+ or a polyethylene glycol residue, Y is a heteroatom, F and F' are a C1-14 linear or branched alkylene which can contain heteroatoms and can be substituted by one or more hydroxy, amino, or halogen group. Formulation of a **hair dye** containing a **pigment** breaking down to dipyrrolidinonylidene at pH>7 and producing indigo color is disclosed.

IT **95230-12-9**
(use of latent **pigments** for **hair** coloring, composition containing aforementioned **pigments** and methods for using them)

RN 95230-12-9 HCAPLUS

CN Pyridinium, 3-[[(2E)-2-[1,3-dihydro-1-[(1-methylpyridinium-3-yl)carbonyl]-3-oxo-2H-indol-2-ylidene]-2,3-dihydro-3-oxo-1H-indol-1-yl]carbonyl]-1-methyl- (9CI) (CA INDEX NAME)

Double bond geometry as shown.



IC ICM A61K007-13
CC 62-3 (Essential Oils and Cosmetics)
ST **hair** coloring **pigment** pyrrolidinonylidene
IT **Hair** preparations
(**dyes**; use of latent **pigments** for **hair** coloring, composition containing aforementioned **pigments** and methods for using them)
IT **Pigments**, nonbiological
(use of latent **pigments** for **hair** coloring, composition containing aforementioned **pigments** and methods for using them)
IT 64784-13-0P
(use of latent **pigments** for **hair** coloring, composition containing aforementioned **pigments** and methods for using them)
IT **95230-12-9**
(use of latent **pigments** for **hair** coloring, composition containing aforementioned **pigments** and methods for using them)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 6 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:220420 HCAPLUS
DOCUMENT NUMBER: 140:272716
TITLE: Formulations comprising water-soluble granulates
INVENTOR(S): Dreyer, Pierre; Haiss, Elke; Iltis, Laure; Kvita, Petr; Menge, Ullrich
PATENT ASSIGNEE(S): Ciba Specialty Chemicals Holding Inc., Switz.
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004022693	A1	20040318	WO 2003-EP9409	2003 0826
			<--	
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2003267010	A1	20040329	AU 2003-267010	2003 0826
			<--	
EP 1534814	A1	20050601	EP 2003-747927	2003 0826
			<--	
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
BR 2003014340	A	20050705	BR 2003-14340	2003 0826
			<--	
CN 1678728	A	20051005	CN 2003-820763	2003 0826
			<--	
JP 2005537370	T2	20051208	JP 2004-533402	2003 0826
			<--	
US 2005227891	A1	20051013	US 2005-526093	2005 0223
			<--	
PRIORITY APPLN. INFO.:			EP 2002-405766 A	2002 0904
			<--	
			WO 2003-EP9409 W	2003 0826

OTHER SOURCE(S): MARPAT 140:272716

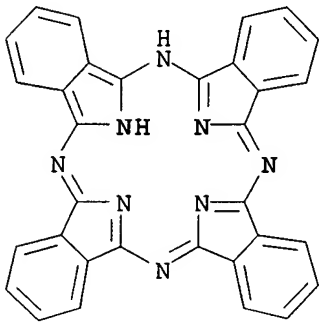
AB The present invention relates to (i) formulations comprising water-soluble granulates of phthalocyanine compds., (ii) a process for the preparation thereof, and (iii) the use thereof in washing agent

and washing agent additive formulations. Thus, a composition comprising 564 g 19.5% aqueous aluminum phthalocyanine solution 564 and 1857 g an aqueous solution containing 541 g anionic dispersing agent and 270 g sodium sulfate was stirred at 25° for 1 h and dried in a spray-dryer with inlet air temperature 190° and exhaust air temperature 105° to give a granulate with average particle d. 70 μm, bulk d. 520 g/L, and residual water content 6%, 0.03% of which was mixed with sodium laurylbenzenesulfonate 10, sodium laurylsulfate 3, Neodol 23-6.5E 4, zeolite A 25, sodium percarbonate 20, perfume 0.1, cellulose 1.5, CM-cellulose 2, sodium sulfate 15, sodium carbonate 10, and tetraacetyl ethylenediamine 3% to give a washing agent.

IT **21328-73-4**, Calcium phthalocyanine
(photoactivator; formulations comprising water-soluble granulates)

RN 21328-73-4 HCAPLUS

CN 29H,31H-Phthalocyanine, calcium salt (1:1) (9CI) (CA INDEX NAME)



● Ca

IC ICM C11D017-06
ICS C11D003-39

CC 46-5 (Surface Active Agents and Detergents)

IT Bleaching agents
Dispersing agents
Dyes
Fillers
Fluorescent brighteners
Pigments, nonbiological
Textiles
Wetting agents
(formulations comprising water-soluble granulates)

IT 132-16-1, Ferrous phthalocyanine 574-93-6D, Phthalocyanine, complexes 1661-03-6, Magnesium phthalocyanine 7440-21-3D, Silicon, phthalocyanine complex 7440-31-5D, Tin, phthalocyanine complex 7440-32-6D, Titanium, phthalocyanine complex 7440-47-3D, Chromium, phthalocyanine complex 7440-55-3D, Gallium, phthalocyanine complex 7440-56-4D, Germanium, phthalocyanine complex 7440-58-6D, Hafnium, phthalocyanine complex 7440-67-7D, Zirconium, phthalocyanine complex 7440-74-6D, Indium, phthalocyanine complex 7723-14-0D, Phosphorus, phthalocyanine complex **21328-73-4**, Calcium phthalocyanine 25047-77-2 25476-27-1, Sodium phthalocyanine
(photoactivator; formulations comprising water-soluble granulates)

REFERENCE COUNT: 10 THERE ARE 10 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 7 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2004:20884 HCAPLUS
DOCUMENT NUMBER: 140:88773
TITLE: Methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy
INVENTOR(S): Nexo, Bjorn Andersen; Vogel, Ulla; Rockenbauer, Eszter; Bukowy, Zuzanna Katarzyna
PATENT ASSIGNEE(S): Aarhus Universitet, Den.; National Institute of Occupational Health
SOURCE: PCT Int. Appl., 145 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004003229	A2	20040108	WO 2003-DK448	2003 0627
			<--	
WO 2004003229	A3	20040527		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
CA 2527588	AA	20040108	CA 2003-2527588	2003 0627
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AU 2003243920	A1	20040119	AU 2003-243920	2003 0627
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EP 1520046	A2	20050406	EP 2003-761445	2003 0627
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.:			DK 2002-1005 A	2002 0627
			<--	

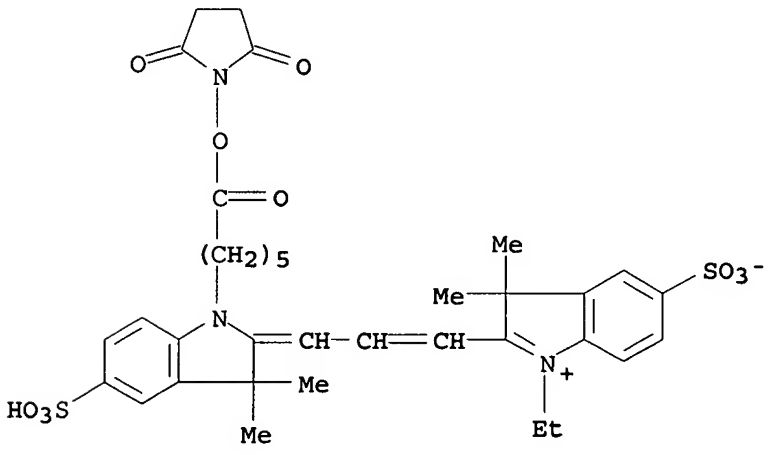
DK 2002-1500	A	2002 1007
<--		
DK 2003-289	A	2003 0225
DK 2003-639	A	2003 0429
WO 2003-DK448	W	2003 0627

AB The present invention provides methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy. In particular, this invention relates to the identification and characterization of polymorphisms in the human chromosome 19q, the region r located approx. 19q13.2-3 correlated with increased risk of developing disease, in particular cancer and the responsiveness of a subject to various treatments for cancer. An allele in the r region can be identified as correlated with an increased risk of developing disease, in particular cancer, the prognosis of developed disease, in particular cancer, and responsiveness to disease treatment, in particular cancer treatment on the basis of statistical analyses of the incidence of a particular allele in individuals diagnosed with disease, in particular cancer. The invention further relates to probes and kits comprising the probes useful in the diagnostic.

IT **146368-16-3D**, Cy3, probe conjugate
(Cy3; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

RN 146368-16-3 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

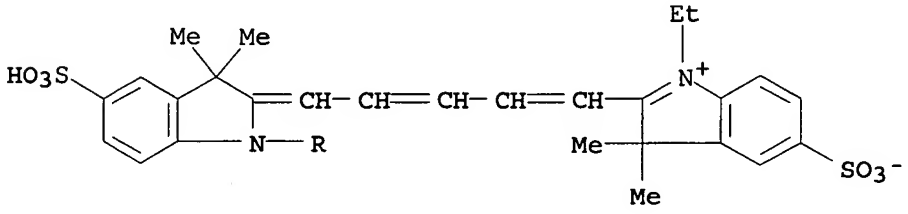


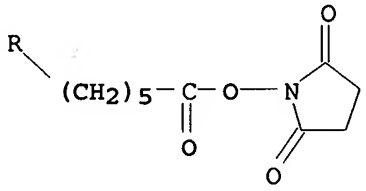
IT **146368-14-1D**, Cy5, probe conjugate

(Cy5; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





IC ICM C12Q001-68

CC 3-3 (Biochemical Genetics)
Section cross-reference(s): 1, 14

IT Animal tissue
Body fluid
Egg
Hair
Leukocyte
Nail (anatomical)
Neoplasm
Semen
(screening; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

IT **146368-16-3D**, Cy3, probe conjugate
(Cy3; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

IT **146368-14-1D**, Cy5, probe conjugate
(Cy5; methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

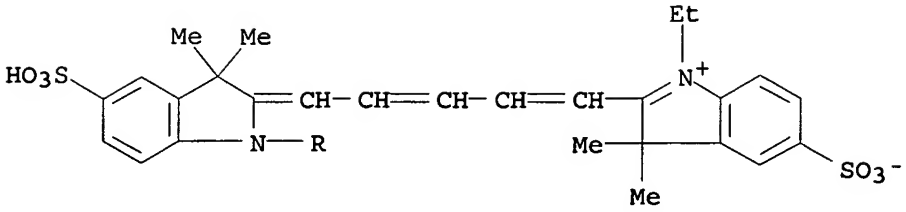
IT 58-85-5D, Biotin, probe conjugate 1672-46-4D, Digoxigenin, probe conjugate 3301-79-9D, 6-FAM, probe conjugate 6268-49-1D, Dabcyl, probe conjugate 76823-03-5D, FAM, probe conjugate 82855-40-1D, JOE, probe conjugate 120718-39-0D, Rox, probe conjugate 120718-52-7D, TAMRA, probe conjugate 155911-16-3D, HEX, probe conjugate 169799-14-8D, Cy7, probe conjugate 192230-82-3D, TET (**dye**), probe conjugate 245670-26-2D, LC Red 640, probe conjugate 251949-03-8D, LC-RED 705, probe conjugate
(methods for detecting polymorphisms in human chromosome 19 associated with cancer and their use in diagnosis and therapy)

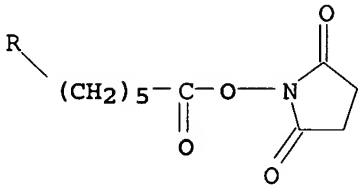
L49 ANSWER 8 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:609953 HCAPLUS
DOCUMENT NUMBER: 139:160749
TITLE: Methods for detecting nucleic acids using universal probes and fluorescence quenching
INVENTOR(S): Nadeau, James G.; Linn, C. Preston; Pitner, J. Bruce; Dean, Cheryl H.; Walker, G. Terrance
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 14 pp., Cont. of U.S. Ser. No. 664,691, abandoned.
CODEN: USXXCO
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003148303	A1	20030807	US 2002-163862 <--	2002 0605
PRIORITY APPLN. INFO.:			US 2000-664691 B1 <--	2000 0919

AB Signal primers are employed for detection of nucleic acid target sequences by fluorescence quenching mechanisms. The signal primer comprises a first adapter oligonucleotide and a second reporter probe oligonucleotide and is partially single-stranded and partially double-stranded. In the presence of target, the reporter probe of the signal primer is displaced from the adapter oligonucleotide and a conformational change in a reporter probe occurs which changes the distance between the members of a donor/quencher **dye** pair linked to the reporter probe. The change in proximity between the **dyes** causes an increase or a decrease in fluorescence quenching, which is detected as an indication of the presence of the target sequence. Strand Displacement Amplification assay for detection of a sequence is demonstrated. The strand displacement reaction led to release of the fluorescein- and DABCYL-labeled probe, formation of a **hairpin** structure by the probe, and fluorescence quenching.

IT **146368-14-1D**, Cy5, probe conjugate
(Cy5; methods for detecting nucleic acids using universal probes and fluorescence quenching)
RN 146368-14-1 HCAPLUS
CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





IC ICM C12Q001-68
INCL 435006000
CC 3-1 (Biochemical Genetics)
IT Conformation
(**hairpin** loop, probe; methods for detecting nucleic acids using universal probes and fluorescence quenching)
IT **146368-14-1D**, Cy5, probe conjugate
(Cy5; methods for detecting nucleic acids using universal probes and fluorescence quenching)

L49 ANSWER 9 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:591438 HCAPLUS
DOCUMENT NUMBER: 139:130375
TITLE: Lateral flow quantitative assay method, device and strip with laser-induced fluorescence detection
INVENTOR(S): Nahm, Kie-bong; Choi, Eui-yeol; Jeong, Dong-seok; Jung, Jin-ha; Moon, Joung-dae; Kim, Young-min; Lee, Keun-woo; Ahn, Jae-soon; Jeong, Young-eui; Park, Sang-yeol; Kim, Hyun-mi; Lee, Byung-ryong
PATENT ASSIGNEE(S): Boditech Inc., S. Korea
SOURCE: PCT Int. Appl., 123 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003062824	A1	20030731	WO 2003-KR151	2003 0123

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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN,

MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE,
SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC,
VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ,
DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL,
PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ,
GW, ML, MR, NE, SN, TD, TG

KR 2003064321	A	20030731	KR 2003-4602	2003 0123 <--
KR 2003065341	A	20030806	KR 2003-4598	2003 0123 <--
US 2005214951	A1	20050929	US 2004-502378	2004 0723 <--
US 2005260666	A1	20051124	US 2005-138561	2005 0526 <--

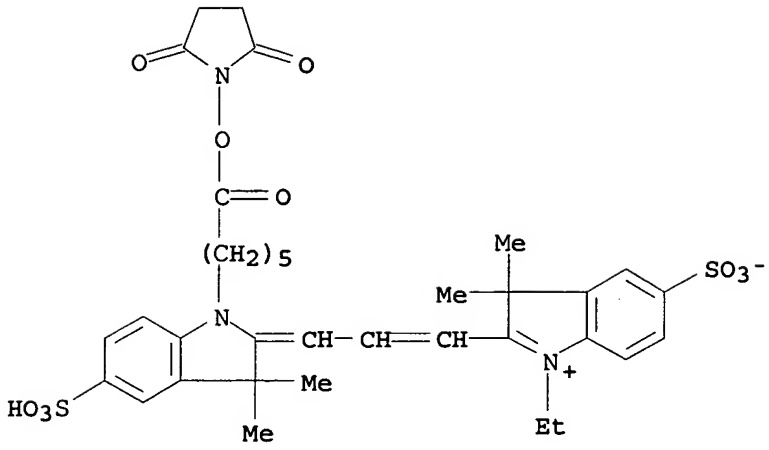
PRIORITY APPLN. INFO.:	KR 2002-3995	A	2002 0123 <--
	KR 2002-5755	A	2002 0131 <--
	WO 2003-KR151	W	2003 0123
	US 2004-502378	A2	2004 0723

AB Method and apparatus for lateral flow quant. assay for bio-analytes are disclosed. The invention includes a highly sensitive bioassay strip for multiple analytes and its subsequent quantitation by an improved laser-induced epi-fluorescence detection apparatus featuring 10-12 g/mL as the lowest analyte concentration for detection. In addition, the lateral flow assay strip of the subject invention enables simultaneous quantitation of multiple analytes.

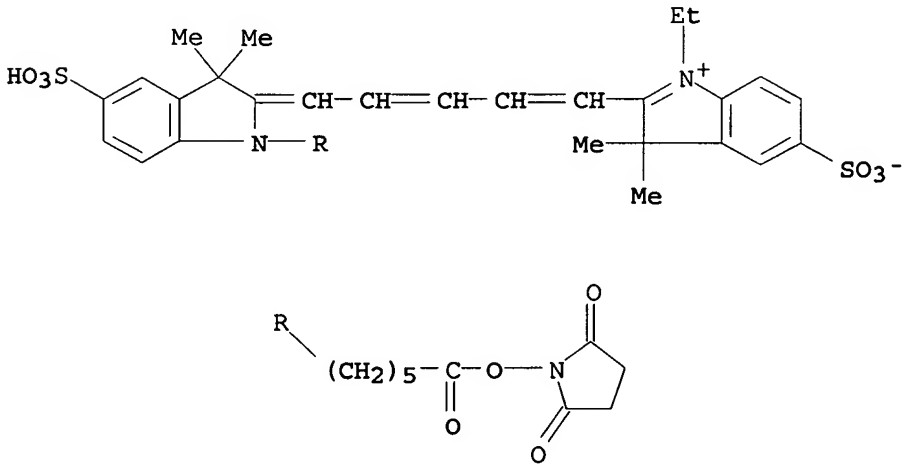
IT **146368-16-3**, Cy3
(Cy3; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)

RN 146368-16-3 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IT **146368-14-1**, Cy5
(Cy5; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)
RN 146368-14-1 HCAPLUS
CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IC ICM G01N033-543
CC 9-1 (Biochemical Methods)
IT **Keratins**
(19, fragment CYFRA21-1; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)
IT Fluorescent **dyes**
(Alexa series; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)
IT Blood analysis
Fluorescent **dyes**
Fluorometry
Immobilization, molecular or cellular

Lab-on-a-chip
(lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)
IT **146368-16-3**, Cy3
(Cy3; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)
IT **146368-14-1**, Cy5
(Cy5; lateral flow quant. assay method, device and strip with laser-induced fluorescence detection)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 10 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:317444 HCAPLUS
DOCUMENT NUMBER: 138:343853
TITLE: Preparation of compositions containing pyridinium derivatives for **cosmetic** and therapeutic applications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): Torrent Pharmaceuticals Ltd., India
SOURCE: Eur. Pat. Appl., 104 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1304101	A1	20030423	EP 2001-204295 <--	2001 1112
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
AU 766824	B2	20031023	AU 2001-31376 <--	2001 0328
AU 2001031376	A5	20021003		
AU 2001089369	A5	20030501	AU 2001-89369 <--	2001 1109
JP 2003137783	A2	20030514	JP 2001-344128 <--	2001 1109
CN 1411809	A	20030423	CN 2001-137440 <--	2001 1112
CN 1411800	A	20030423	CN 2001-137441 <--	2001 1112
BR 2001005143	A	20040713	BR 2001-5143	2001

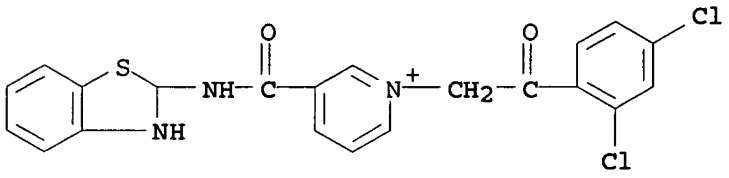
1112
<--
CA 2361863 AA 20030419 CA 2001-2361863
2001
1113
<--
PRIORITY APPLN. INFO.: IN 2001-CA605 A
2001
1019
<--
IN 2001-CA620 A
2001
1101
<--
OTHER SOURCE(S): MARPAT 138:343853

AB The invention discloses a new class of compds. particularly pyridinium derivs., which have been found to exhibit triple function of a free radical scavenger (antioxidant), AGE (advanced glycation end product) breaker and AGE inhibitor, and **cosmetic** composition comprising these compds. contained in a **cosmetically** acceptable carrier. The invention also discloses a method of **cosmetic** application by applying such compns. The invention further discloses a pharmaceutical composition, comprising the compds. useful in scavenging free radicals from the body cells of a mammal, a method of scavenging free radicals from the body cells of a mammal and a method of treating of diseases caused by accumulation of free radicals in the body cells of a mammal by administering a composition made with the compds. The invention in addition, also discloses composition and method for inhibiting AGE in a mammal by use of the compds. of the same group. Thus, a composition contained pyridinium compound 0.25, oleic acid 10.0, propylene glycol 70.0, Tween-80 0.1, and EtOH qs to 100.0%.

IT **515864-12-7P**
(preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

RN 515864-12-7 HCAPLUS

CN Pyridinium, 1-[2-(2,4-dichlorophenyl)-2-oxoethyl]-3-[[(2,3-dihydro-2-benzothiazolyl)amino]carbonyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

IC ICM A61K007-48
ICS A61K031-44; A61P017-00

CC 63-6 (Pharmaceuticals)
Section cross-reference(s): 1, 27, 62

ST pyridinium deriv **cosmetic** pharmaceutical prepn

IT Glycoproteins

(AGE (advanced glycation end product); preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Nervous system, disease
(Huntington's chorea; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Capillary vessel
(Telangiectasia; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Skin, disease
(aging, wrinkles; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Liver, disease
(alc.; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Lung, disease
(chronic obstructive pulmonary disease; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT **Cosmetics**
(conditioners; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Nervous system, disease
(degeneration; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Skin, disease
(dry; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT **Cosmetics**
Drug delivery systems
(emollients; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Skin
(epidermis, growth; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Acne
Dandruff
Seborrhea
(inhibitors; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Drug delivery systems
(lotions; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Eye, disease
(macula, degeneration; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Nerve, disease
(motor; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Drug delivery systems
(oral; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Drug delivery systems
(parenterals; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Skin, disease
(**pigmentation**; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT AIDS (disease)
Acne

Alzheimer's disease
Analgesics
Anesthetics
Anti-inflammatory agents
Antibacterial agents
Anticoagulants
Antihistamines
Antioxidants
Antiviral agents
Asthma
Cataract
Coloring materials
Cosmetics
Dentifrices
Diabetes mellitus
Emulsifying agents
Eye, disease
Fatigue, biological
Fungicides
Hair
Heart, disease
Humectants
Insect repellents
Intestine, disease
Kidney, disease
Liver, disease
Lubricants
Mouthwashes
Nail (anatomical)
Neoplasm
Odor and Odorous substances
Oxidative stress, biological
Parasiticides
Parkinson's disease
Perfumes
Permeation enhancers
Photoprotectants
Preservatives
Prion diseases
Radical scavengers
Respiratory system, disease
Sunburn
Sunscreens
Thickening agents
Thrombolytics
(preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Alcohols, biological studies
Hormones, animal, biological studies
Polyoxyalkylenes, biological studies
Polysiloxanes, biological studies
Retinoids
Vitamins
(preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Collagens, biological studies
(prevention of loss of; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)

IT Skin, disease
(senile xerosis; preparation of compns. containing pyridinium derivs.

for **cosmetic** and therapeutic applications)
IT Drug delivery systems
(tablets; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
IT 98-92-0, Nicotinamide 2631-72-3, 2,4-Dichlorophenacyl bromide
(in pyridinium compds. preparation; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
IT 70-11-1, Phenacyl bromide 840-78-8
(in pyridinium hydrazine derivs. preparation; preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
IT 333797-24-3P 333797-26-5P 333797-27-6P 333797-28-7P
333797-30-1P 333797-32-3P 333797-33-4P 333797-35-6P
333797-37-8P 333797-90-3P 333797-91-4P 333797-92-5P
333797-95-8P 333797-96-9P 333797-97-0P 333797-98-1P
333797-99-2P 333798-00-8P 333798-01-9P 333798-02-0P
333798-04-2P 333798-05-3P 333798-06-4P 357625-22-0P
357625-23-1P 357625-24-2P 357625-28-6P 357625-29-7P
357625-30-0P 357625-31-1P 357625-32-2P 357625-33-3P
357625-34-4P 357625-35-5P 357625-36-6P 357625-37-7P
357625-38-8P 357625-39-9P 357625-41-3P 357625-43-5P
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460051-50-7P 460051-52-9P 460051-54-1P 460051-59-6P
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460740-98-1P 515864-02-5P 515864-03-6P 515864-04-7P
515864-05-8P 515864-06-9P 515864-07-0P 515864-08-1P
515864-09-2P 515864-10-5P 515864-11-6P **515864-12-7P**
515864-13-8P 515864-14-9P 515864-15-0P 515864-16-1P
515864-17-2P 515864-18-3P 515864-19-4P 515864-20-7P
515864-21-8P 515864-22-9P
(preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
IT 16844-14-7 104932-96-9 333797-38-9 333797-39-0
(preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
IT 63-42-3, Lactose 557-04-0 9003-39-8, Polyvinylpyrrolidone 9005-25-8, Starch, biological studies 14807-96-6, Talc, biological studies 25322-68-3, PEG
(preparation of compns. containing pyridinium derivs. for **cosmetic** and therapeutic applications)
REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 11 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:238134 HCAPLUS
DOCUMENT NUMBER: 138:234488
TITLE: Method for the determination of multiple disease markers in tissues
PATENT ASSIGNEE(S): Werner, M., Germany
SOURCE: Ger. Offen., 10 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German

FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

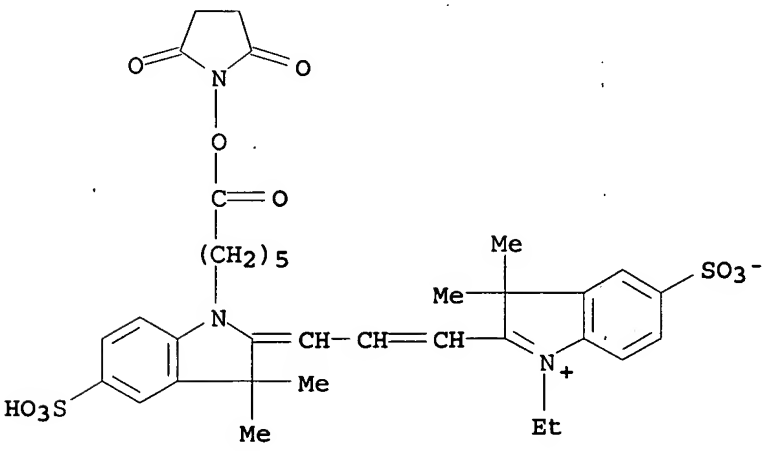
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 10143757	A1	20030327	DE 2001-10143757 <--	2001 0906
PRIORITY APPLN. INFO.:			DE 2001-10143757 <--	2001 0906

AB The invention concerns a method for the determination of at least two disease markers in a tissue by using labeled antibodies, lectins or nucleic acids. Labels are fluorescent **dyes** or enzymes. Disease-causing microorganisms, antigens, epitopes. proteins, chromosomes, genes, oncogenes, tumor surpressants , nucleic acids are determined

IT **146368-16-3**, Cy3
(Cy3; method for determination of multiple disease markers in tissues)

RN 146368-16-3 HCAPLUS

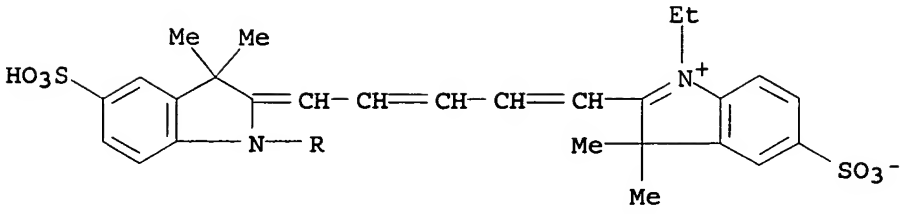
CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

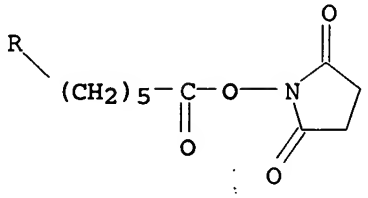


IT **146368-14-1**
(Cy5; method for determination of multiple disease markers in tissues)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





IC ICM C12Q001-02
CC 9-16 (Biochemical Methods)
IT **Keratins**
(10; method for determination of multiple disease markers in tissues)
IT **Keratins**
(13; method for determination of multiple disease markers in tissues)
IT **Keratins**
(14; method for determination of multiple disease markers in tissues)
IT **Keratins**
(17; method for determination of multiple disease markers in tissues)
IT **Keratins**
(18; method for determination of multiple disease markers in tissues)
IT **Keratins**
(19; method for determination of multiple disease markers in tissues)
IT **Keratins**
(20; method for determination of multiple disease markers in tissues)
IT **Keratins**
(6; method for determination of multiple disease markers in tissues)
IT **Keratins**
(7; method for determination of multiple disease markers in tissues)
IT **Keratins**
(8; method for determination of multiple disease markers in tissues)
IT **Keratins**
(AE1/AE3; method for determination of multiple disease markers in tissues)
IT **Keratins**
(CK5/8; method for determination of multiple disease markers in tissues)
IT **Keratins**
(LUS; method for determination of multiple disease markers in tissues)
IT Animal tissue
Aspergillus
B19 virus
Chlamydia pneumoniae
Chromosome
Cytomegalovirus
Enterovirus
Escherichia coli
Fluorescent **dyes**
Helicobacter pylori

Human
Human herpesvirus 1
Human herpesvirus 2
Human herpesvirus 4
Human immunodeficiency virus
Human papillomavirus
Human papillomavirus 11
Human papillomavirus 16
Human papillomavirus 18
Human papillomavirus 31
Human papillomavirus 33
Immunoassay
Microorganism
Mycobacterium bovis
Nucleic acid hybridization
Pneumocystis carinii
Toxoplasma gondii
Tumor markers
Ulex europaeus
(method for determination of multiple disease markers in tissues)
IT **146368-16-3**, Cy3
(Cy3; method for determination of multiple disease markers in tissues)
IT **146368-14-1**
(Cy5; method for determination of multiple disease markers in tissues)
REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 12 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2003:6168 HCAPLUS
DOCUMENT NUMBER: 138:67816
TITLE: Dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis
INVENTOR(S): Bao, Gang; Tsourkas, Andrew; Xu, Yangqing
PATENT ASSIGNEE(S): Georgia Tech Research Corporation, USA
SOURCE: PCT Int. Appl., 78 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 3
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003000933	A1	20030103	WO 2002-US20094	2002 0625

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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

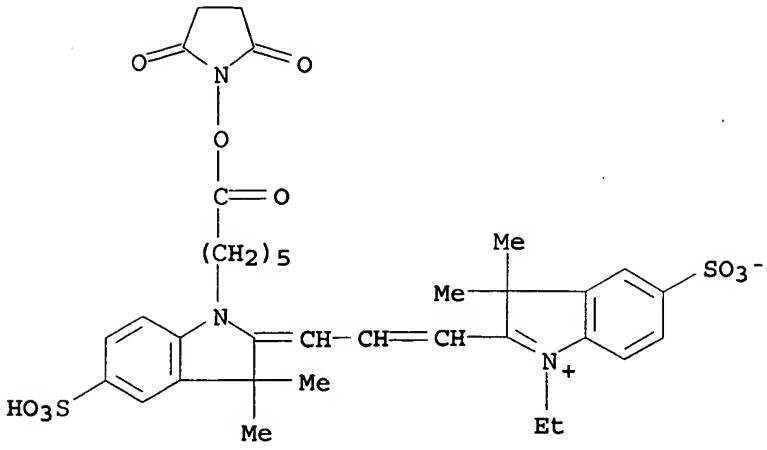
CA 2451614	AA	20030103	CA 2002-2451614	2002 0625 <--
EP 1409735	A1	20040421	EP 2002-746673	2002 0625 <--
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
JP 2004532649	T2	20041028	JP 2003-507314	2002 0625 <--
PRIORITY APPLN. INFO.:			US 2001-300672P P	2001 0625 <--
			US 2001-303258P P	2001 0703 <--
			WO 2002-US20094 W	2002 0625 <--

AB Dual nucleic acid probes with resonance energy transfer moieties are provided. In particular, fluorescent or luminescent resonance energy transfer (FRET or LRET, resp.) moieties are provided on **hairpin** stem-loop mol. beacon probes that hybridize sufficiently near each other on a subject nucleic acid, e.g. mRNA, to generate an observable interaction. The invention also provides lanthanide chelate LRET moieties on linear and stem-loop probes that hybridize sufficiently near each other on a subject nucleic acid to generate an observable interaction. The invention thereby provides detectable signals for rapid, specific and sensitive hybridization determination in vivo. The probes are used in methods of detection of nucleic acid target hybridization for the identification and quantification of tissue and cell-specific gene expression levels, including response to external stimuli, such as drug candidates, and genetic variations associated with disease, such as cancer. Thus, the method was demonstrated using two probes capable of FRET or LRET when bound next to each other on the human glyceraldehyde-3-phosphate dehydrogenase gene. Similar probes which may be used for detection of K-ras mutations or levels of survivin gene expression are presented.

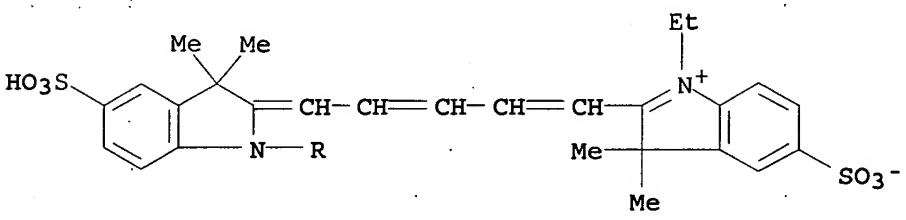
IT **146368-16-3D**, Cy3, conjugates with stem-loop-forming oligonucleotide probes
(Cy3; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

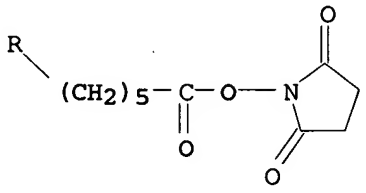
RN 146368-16-3 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IT **146368-14-1D**, Cy5, conjugates with stem-loop-forming oligonucleotide probes
(Cy5; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)
RN 146368-14-1 HCAPLUS
CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





IC ICM C12Q001-68
ICS C07H021-02; C07H021-04
CC 3-1 (Biochemical Genetics)
IT Luminescent substances
(**dyes**, conjugates with stem-loop-forming oligonucleotide probes; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)
IT **Dyes**
(luminescent, conjugates with stem-loop-forming oligonucleotide probes; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)

IT **146368-16-3D**, Cy3, conjugates with stem-loop-forming oligonucleotide probes
(Cy3; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)
IT **146368-14-1D**, Cy5, conjugates with stem-loop-forming oligonucleotide probes
(Cy5; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)
IT 102250-30-6D, lanthanide chelates 166320-71-4D, lanthanide chelates 200862-70-0D, BHHCT, lanthanide chelates 275820-89-8, W1024 303030-95-7, Quantum **dye** 479637-45-1D, lanthanide chelates
(oligonucleotide probes containing; dual resonance energy transfer nucleic acid probes and their use in cancer diagnosis)
REFERENCE COUNT: 6 THERE ARE 6 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 13 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:889451 HCAPLUS
DOCUMENT NUMBER: 137:381947
TITLE: Methods and reagents for the rapid and efficient isolation of circulating cancer cells
INVENTOR(S): Terstappen, Leon W. M. M.; Rao, Galla Chandra; O'Hara, Shawn Mark; Liberti, Paul A.; Gross, Steven; Doyle, Gerald
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 56 pp., Cont.-in-part of U.S. 6,365,362.
CODEN: USXXCO
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 4
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2002172987	A1	20021121	US 2002-79939 <--	20020219
CA 2432361	AA	19990819	CA 1999-2432361 <--	19990212
CA 2432363	AA	19990819	CA 1999-2432363 <--	19990212
US 6365362	B1	20020402	US 1999-248388 <--	19990212
US 2002009759	A1	20020124	US 2001-904472 <--	20010713
US 6645731	B2	20031111		

CA 2438112 AA 20030807 CA 2002-2438112
2002
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WO 2003065042 A1 20030807 WO 2002-US5233
2002
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W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE,
SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ,
VN, YU, ZA, ZM, ZW
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM,
AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK,
ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF,
BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

EP 1360496 A1 20031112 EP 2002-806645
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MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR

JP 2005516217 T2 20050602 JP 2003-564585
2002
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BR 2002007290 A 20050607 BR 2002-7290
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0219
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US 2003129676 A1 20030710 US 2002-269579
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JP 2005010177 A2 20050113 JP 2004-265687
2004
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PRIORITY APPLN. INFO.: US 1998-74535P P
1998
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1130
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US 1998-110279P P
1998
1130
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US 1999-248388 A2
1999
0212
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2001
0216

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0220
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2001
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CA 1999-2320418 A3
1999
0212
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JP 2000-531745 A3
1999
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WO 2002-US5233 W
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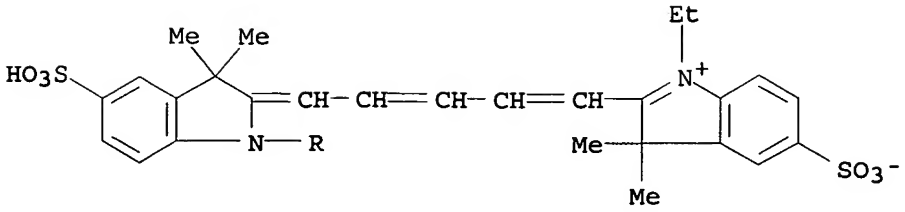
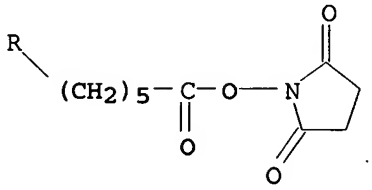
AB Methods and compns. are provided for detecting circulating tumor cells and assessing said cells for alterations in tumor-diathesis associated mols. Blood samples of women with stage III or metastatic breast cancer were reacted with anti-epithelial cell adhesion mol. monoclonal antibodies coupled to magnetic nanoparticles for immunomagnetic separation of epithelial cells from the blood. The separated cells were further reacted with phycoerythrin conjugated with anti-cytokeratin monoclonal antibody to cytokeratin, peridinin chlorophyll protein-labeled anti-CD45, and cyanine 5-labeled anti-HER-2. The samples were analyzed by FACS. The number of circulating tumor cells was determined and shown to be useful in assessing tumor progression.

IT **146368-14-1D**, Cy 5, conjugates with antibody to HER-2
(methods and reagents for rapid and efficient isolation of circulating cancer cells)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





IC ICM G01N033-574
INCL 435007230
CC 9-10 (Biochemical Methods)
Section cross-reference(s): 14
IT **Keratins**
(10, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Keratins**
(13, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Keratins**
(18, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Keratins**
(4, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Keratins**
(5, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Keratins**
(6, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Keratins**
(8, monoclonal antibodies to; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Dyes**
(cell-specific; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **Keratins**
(reagents binding to intracellular; methods and reagents for rapid and efficient isolation of circulating cancer cells)
IT **146368-14-1D**, Cy 5, conjugates with antibody to HER-2
(methods and reagents for rapid and efficient isolation of circulating cancer cells)

L49 ANSWER 14 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:832793 HCAPLUS
DOCUMENT NUMBER: 137:337886
TITLE: Preparation of pyrazolyl- and isoxazolylpyridinium halides for treatment of

aging-related and diabetic vascular complications
INVENTOR(S): Sankaranarayanan, Alangudi
PATENT ASSIGNEE(S): India
SOURCE: PCT Int. Appl., 180 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002085897	A1	20021031	WO 2002-IB1137	2002 0402
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WO 2002085897	C1	20021128		
WO 2002085897	C2	20040401		
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RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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OTHER SOURCE(S): MARPAT 137:337886

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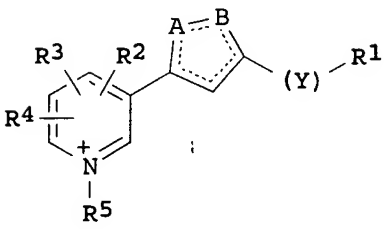

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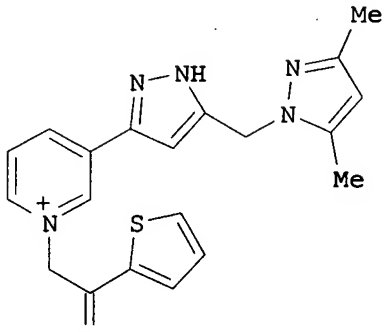


II

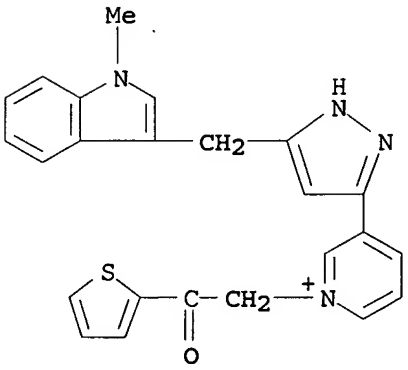
AB Title compds. I•X- [wherein R1 = H or (un)substituted (heterocyclo)alkyl, alkenyl, (bi)cycloalkyl, (bi)cycloalkenyl, (hetero)aryl, or (hetero)aralkyl; Y = alkyl-Z or alkyl; Z = S, O, or N; A and B = independently NH, NR6, S, O, or C; R2, R3, and R4 = independently H, halo, NO2, N:CR8R9, NR8R9, OR8, perhaloalkyl, CONR7R9, COR8, CO2R8, OCOR8, NHCOR8, or (un)substituted (heterocyclo)alkyl, alkenyl, (bi)cycloalkyl, (bi)cycloalkenyl, (hetero)aryl, or (hetero)aralkyl; R5 = null or (un)substituted (cyclo)alkyl, (cyclo)alkenyl, bicycloalkyl, CH2COR7, CH2CONHR8, CH2CONR8R9, or CH2CO2R7; R6 and R7 = independently (un)substituted alkyl, perhalo(cyclo)alkyl, (alkyl)cycloalkyl, (hetero)aryl, (hetero)aralkyl, alkyl(hetero)aryl, aralkoxyalkyl, acyl, benzoyl, alkoxyalkyl, thioalkyl, thioaryl, etc.; R8 and R9 = independently (un)substituted (perhalo)alkyl, (perhalo)cycloalkyl,

alkoxy(cyclo)alkyl, alkoxyaryl, heterocycloalkyl, etc.; and pharmaceutically or **cosmetically** acceptable salts thereof] were prepared I•X- act by triple action of an AGE (advanced glycation endproducts) breaker, AGE inhibitor, and free radical scavenger. For example, 3-acetylpyridine was added to Et 3,5-dimethylpyrazolylacetate to give the butane-1,3-dione, which was then cyclized with hydrazine in MeOH to afford 3-[3-(3,5-dimethylpyrazol-1-ylmethyl)pyrazol-5-yl]pyridine. Quaternization with α-bromo-2-acetylthiophene in IPA produced the pyridinium bromide (II•Br-). Representative compds. of the invention exhibited AGE breaking activity between 42.37% and 100% at concns. of 10 mM, inhibited AGE activity between 55.22% and 82.5% at concns. of 5 mM, and displayed free radical scavenging activity on ABTS between 29.40% and 99.71% at concns. of 100 μM. Thus, I•X- are useful for therapeutic and **cosmetic** applications, particularly in the management of aging-related and diabetic vascular complications (no data). Pharmaceuticals and **cosmetic** compns. comprising I are also disclosed.

IT **473882-35-8P**, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-[(N-methylindole-3-yl)methyl]pyrazol-5-yl]pyridinium chloride
(AGE inhibitor; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors by formation of diketo compds., cyclization, and quaternization)

RN 473882-35-8 HCAPLUS

CN Pyridinium, 3-[5-[(1-methyl-1H-indol-3-yl)methyl]-1H-pyrazol-3-yl]-1-[2-oxo-2-(2-thienyl)ethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

IC ICM C07D409-00

CC 28-8 (Heterocyclic Compounds (More Than One Hetero Atom))
Section cross-reference(s): 1, 62

IT **Cosmetics**
(creams; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)

IT **Cosmetics**
(emollients; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)

IT **Hair**
Nail (anatomical)
(improving appearance of; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
IT Skin, disease
(**pigmentation**; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
IT AIDS (disease)
Acne
Aging, animal
Alzheimer's disease
Anti-AIDS agents
Anti-Alzheimer's agents
Anti-inflammatory agents
Antitumor agents
Atherosclerosis
Cosmetics
Dentifrices
Dialysis
Eye, disease
Growth disorders, animal
Heart, disease
Human
Inflammation
Intestine, disease
Kidney, disease
Liver, disease
Mouthwashes
Neoplasm
Oxidative stress, biological
Radical scavengers
Respiratory system, disease
Sunscreens
(preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
IT **Cosmetics**
(wrinkle-preventing; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors for treatment of aging-related and diabetic vascular complications)
IT 473881-86-6P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium bromide 473881-87-7P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium bromide 473881-88-8P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[(5-phenylmethyl)isoxazol-3-yl]pyridinium bromide 473881-89-9P 473881-90-2P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-(phenylmethyl)-1-(2-pyridyl)pyrazol-5-yl]pyridinium bromide 473881-91-3P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]-1-(2-pyridyl)pyrazol-5-yl]pyridinium bromide 473881-92-4P, 1-[2-(Cyclopropylamino)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium bromide 473881-93-5P, 1-[2-(4-Nitro-2-thienyl)-2-oxoethyl]-3-[3-[(3,5-dimethylpyrazol-1-yl)methyl]pyrazol-5-yl]pyridinium bromide 473881-94-6P, 1-(2-Cyclopropylamino-2-oxoethyl)-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride 473881-95-7P, 3,5-Bis[1-[2-(thien-2-yl)-2-oxoethyl]pyridinium-3-yl]pyrazole dibromide 473881-96-8P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[1-

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473882-32-5P, 1-(2-(5-Methyl-2-thienyl)-2-oxoethyl)-3-[3-(3-phenoxypropyl)pyrazol-5-yl]pyridinium chloride 473882-33-6P, 1-(Isopropyl)-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium bromide 473882-34-7P, 1-[2-(5-Methyl-2-thienyl)-2-oxoethyl]-3-[3-[(phenylthio)methyl]pyrazol-5-yl]pyridinium chloride **473882-35-8P**, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-[(N-methylindole-3-yl)methyl]pyrazol-5-yl]pyridinium chloride 473882-36-9P, 1-[2-(2-Naphthyl)-2-oxoethyl]-3-[3-methylpyrazol-5-yl]pyridinium bromide 473882-37-0P, 1-[2-(1,4-Benzodioxan-6-ylamino)-2-oxoethyl]-3-[3-(phenylmethyl)pyrazol-5-yl]pyridinium chloride 473882-38-1P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-phenylpyrazol-5-yl]-5-bromopyridinium chloride 473882-39-2P, 1-[2-(Thien-2-yl)-2-oxoethyl]-3-[3-phenylpyrazol-5-yl]quinolinium chloride 473882-40-5P, 3-[3-Phenylpyrazol-5-yl]quinoline
(AGE inhibitor; preparation of pyrazolyl- and isoxazolylpyridinium halide AGE inhibitors by formation of diketo compds., cyclization, and quaternization)

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 15 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:830270 HCAPLUS
DOCUMENT NUMBER: 137:339044
TITLE: Phthalocyanine **dye** compositions
INVENTOR(S): Banning, Jeffrey H.; Hu, Nan-Xing; Mayo, James D.; Duff, James M.; Gaynor, Roger E.; Duque, Rosa M.; Ro, Nam S.
PATENT ASSIGNEE(S): Xerox Corporation, USA
SOURCE: U.S., 30 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 6472523	B1	20021029	US 2002-72241	2002 0208
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PRIORITY APPLN. INFO.:			US 2002-72241 A	2002 0208
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OTHER SOURCE(S): MARPAT 137:339044

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

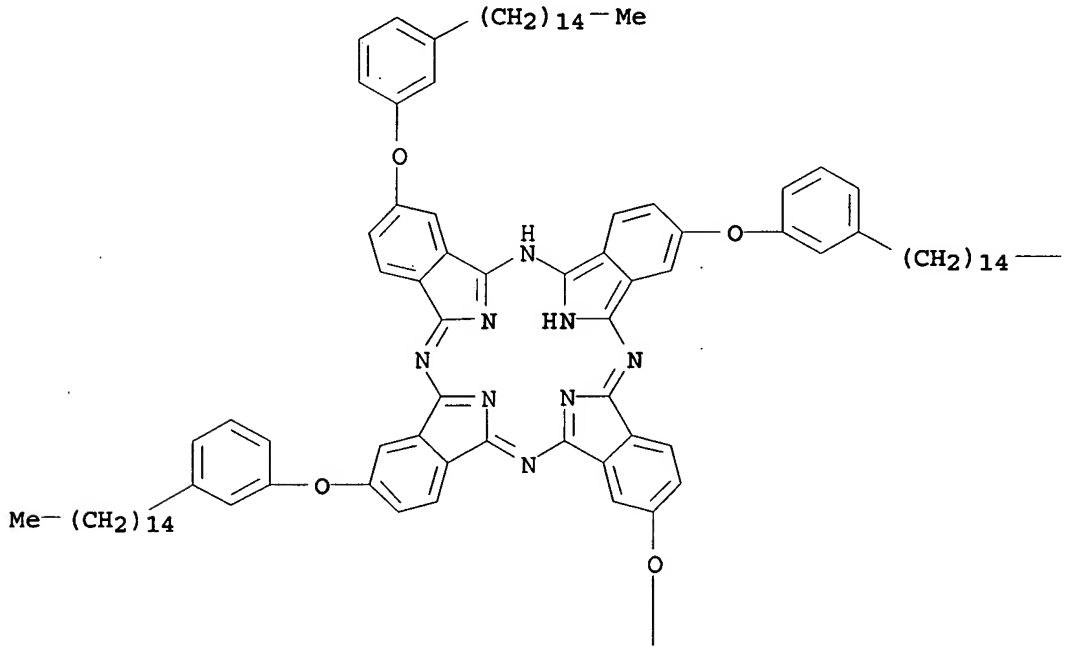
AB Disclosed are pentadecylphenoxy-substituted phthalocyanine **dyes** (I; M = atom or group of atoms capable of bonding to the central cavity of the phthalocyanine mol., whereby axial ligands optionally can be attached to M). I are especially suitable for phase-change (hot-melt) printing inks, showing good solubility and performance properties. In an example, 3-pentadecylphenol was condensed with 4-nitrophthalonitrile to give 4-(3-pentadecylphenoxy)phthalonitrile, which with CuCl2 gave blue I (M = Cu), λmax 683 nm.

IT **473702-43-1**
(**dye**; pentadecylphenoxy-substituted phthalocyanine **dyes** for printing ink)

RN 473702-43-1 HCAPLUS

CN 29H,31H-Phthalocyanine, 2,9,16,23-tetrakis(3-pentadecylphenoxy)-, calcium salt (1:1) (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 1-B

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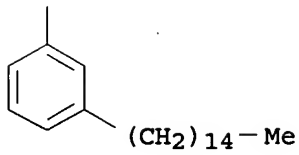
PAGE 2-A



● Ca

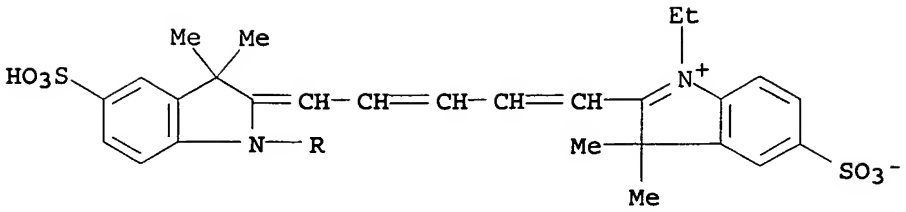
IC ICM C07D487-22
ICS C07B047-10
INCL 540128000
CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 25, 28, 42, 78
ST phthalocyanine **dye** prodn hot melt printing ink
IT Inks
(jet-printing, hot-melt; pentadecylphenoxy-substituted phthalocyanine **dyes** for)
IT **Dyes**
(pentadecylphenoxy-substituted phthalocyanine **dyes** for printing ink)
IT 501-24-6, Cardolite NC 510
(Cardolite NC 510, starting material; production of pentadecylphenoxy-substituted phthalocyanine **dyes** for printing ink)
IT 177992-44-8P 473702-49-7P 473702-50-0P 473702-51-1P 473702-52-2P
(blue **dye**; pentadecylphenoxy-substituted phthalocyanine **dyes** for printing ink)
IT 473702-38-4 473702-39-5 473702-40-8 473702-41-9 473702-42-0 **473702-43-1** 473702-44-2 473702-45-3 473702-46-4 473702-47-5 473702-48-6 473702-53-3 473702-54-4 473702-55-5 473702-56-6 473702-57-7 473702-58-8 473702-59-9 473702-60-2 473702-61-3 473702-62-4 473702-63-5 473702-65-7 473702-66-8 473702-67-9
(**dye**; pentadecylphenoxy-substituted phthalocyanine **dyes** for printing ink)
IT 473702-64-6P
(intermediate; production of pentadecylphenoxy-substituted

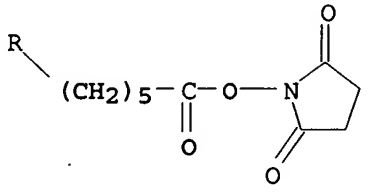
phthalocyanine **dyes** for printing ink)
IT 631-61-8, Ammonium acetate 4465-79-6, Cupric acetate dihydrate 5970-45-6, Zinc acetate dihydrate 6018-89-9, Nickel diacetate tetrahydrate 6046-93-1, Cupric acetate monohydrate 7447-39-4, Cupric chloride, reactions 7646-79-9, Cobalt dichloride, reactions 31643-49-9, 4-Nitrophthalonitrile
(starting material; production of pentadecylphenoxy-substituted phthalocyanine **dyes** for printing ink)
REFERENCE COUNT: 63 THERE ARE 63 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 16 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:714224 HCAPLUS
DOCUMENT NUMBER: 137:243915
TITLE: Assays for sequence-specific depurinating and depyrimidinating enzymes using molecular beacon substrates
INVENTOR(S): Ayguen, Hueseyin; Wojczewski, Sylvia
PATENT ASSIGNEE(S): Viscum AG, Germany
SOURCE: Eur. Pat. Appl., 32 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

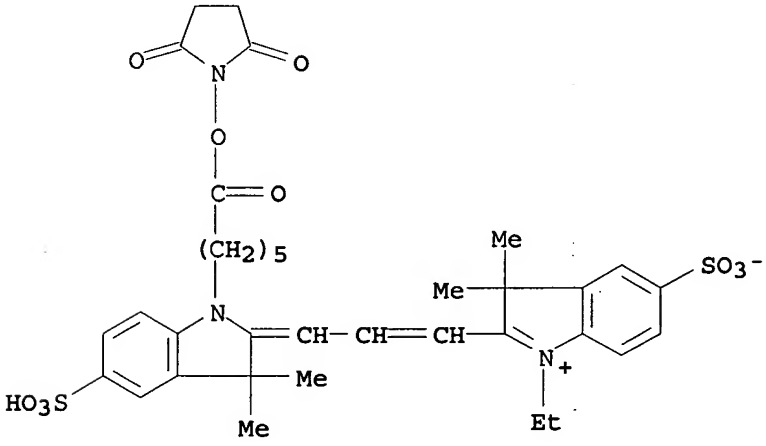
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1241267	A2	20020918	EP 2002-5362	20020314
			<--	
EP 1241267	A3	20040102		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR				
PRIORITY APPLN. INFO.:			EP 2001-106265 A	20010314
			<--	

AB A method of assaying for enzymes that remove purine or pyrimidine bases from nucleic acids in a sequence-specific manner without strand scission is described. The method uses a mol. beacon as a substrate. A stem-loop nucleic acid structure brings together a FRET pair of reporter **dyes**: a fluorophore and a quencher. As the bases are removed from the stem by the enzyme, the stem loses stability and the fluorophore is able to fluoresce. Use of a fluorescein/DABCYL pair to assay the rRNA N-glycosidase activity of viscumin is demonstrated.
IT **146368-14-1D**, Cy5, oligonucleotide conjugates
146368-16-3D, Cy3, oligonucleotide conjugates
(reporter group; assays for sequence-specific depurinating and depyrimidinating enzymes using mol. beacon substrates)
RN 146368-14-1 HCAPLUS
CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





RN 146368-16-3 HCAPLUS
CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



IC ICM C12Q001-68
CC 7-1 (Enzymes)
Section cross-reference(s): 3
IT Conformation
(**hairpin** loop, in assay substrate for nucleic acid N-glycosidases; assays for sequence-specific depurinating and depyrimidinating enzymes using mol. beacon substrates)
IT 81-88-9D, oligonucleotide conjugates 88-68-6D, Anthranilamide, oligonucleotide conjugates 91-64-5D, Coumarin, oligonucleotide conjugates 129-00-0D, Pyrene, butyrate derivs., oligonucleotide conjugates 129-00-0D, Pyrene, oligonucleotide conjugates 989-38-8D, Rhodamine 6G, oligonucleotide conjugates 2321-07-5D, Fluorescein, oligonucleotide conjugates 3546-21-2D, Ethidium, oligonucleotide conjugates 3604-79-3D, 3-Nitrotyrosine, oligonucleotide conjugates 6268-49-1D, DABCYL, oligonucleotide

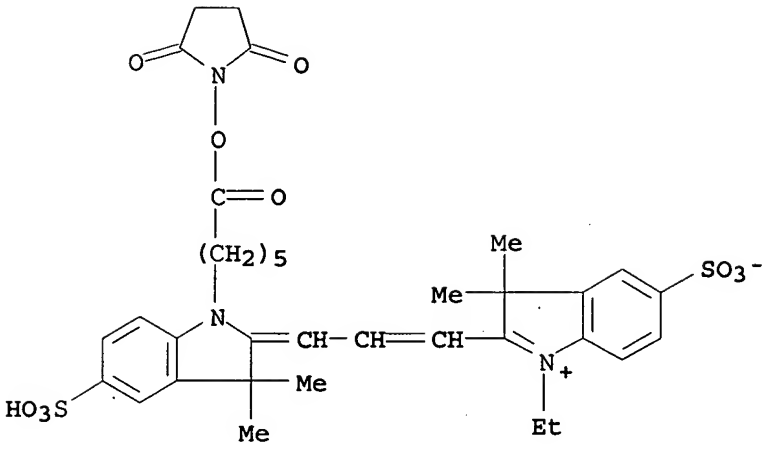
conjugates 50402-56-7D, EDANS, oligonucleotide conjugates 75929-56-5D, TAMRA, oligonucleotide conjugates 82354-19-6D, Texas Red, oligonucleotide conjugates **146368-14-1D**, Cy5, oligonucleotide conjugates **146368-16-3D**, Cy3, oligonucleotide conjugates
(reporter group; assays for sequence-specific depurinating and depyrimidinating enzymes using mol. beacon substrates)

L49 ANSWER 17 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:660104 HCAPLUS
DOCUMENT NUMBER: 138:184634
TITLE: Redefining the skin's **pigmentary** system with a novel tyrosinase assay
AUTHOR(S): Han, Rong; Baden, Howard P.; Brissette, Janice L.; Weiner, Lorin
CORPORATE SOURCE: Cutaneous Biology Research Center, Massachusetts General Hospital and Harvard Medical School, Charlestown, MA, USA
SOURCE: Pigment Cell Research (2002), 15(4), 290-297
CODEN: PCREEA; ISSN: 0893-5785
PUBLISHER: Blackwell Munksgaard
DOCUMENT TYPE: Journal
LANGUAGE: English

AB In mammalian skin, melanin is produced by melanocytes and transferred to epithelial cells, with the epithelial cells thought to receive **pigment** only and not generate it. Melanin formation requires the enzyme tyrosinase, which catalyzes multiple reactions in the melanin biosynthetic pathway. Here, we reassess cutaneous melanogenesis using tyramide-based tyrosinase assay (TTA), a simple test for tyrosinase activity in situ. In the TTA procedure, tyrosinase reacts with biotinyl tyramide, causing the substrate to deposit near the enzyme. These biotinylated deposits are then visualized with streptavidin conjugated to a fluorescent **dye**. In the skin and eye, TTA was highly specific for tyrosinase and served as a sensitive indicator of **pigment** cell distribution and status. In clin. skin samples, the assay detected **pigment** cell defects, such as melanocytic nevi and vitiligo, providing confirmation of medical diagnoses. In murine skin, TTA identified a new tyrosinase-pos. cell type - the medullary cells of the **hair**-providing the first example of cutaneous epithelial cells with a melanogenic activity. Presumably, the epithelial tyrosinase originates in melanocytes and is acquired by medullary cells during **pigment** transfer. As tyrosinase by itself can generate **pigment** from tyrosine, it is likely that medullary cells produce melanin de novo. Thus, we propose that melanocytes convert medullary cells into **pigment** cells by transfer of the melanogenic apparatus, an unusual mechanism of differentiation that expands the skin's **pigmentary** system.

IT **146368-16-3D**, Cy3, conjugates with streptavidin
(Cy3; tyramide-based tyrosinase assay (TTA) for fluorescent histochem. detection of tyrosinase and evidence that the melanogenic apparatus of medullary cells is acquired from melanocytes)

RN 146368-16-3 HCAPLUS
CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)



CC 13-6 (Mammalian Biochemistry)
Section cross-reference(s): 7, 9

IT **Hair**
(follicle, medullary cell, melanogenesis; tyramide-based tyrosinase assay (TTA) for fluorescent histochem. detection of tyrosinase and evidence that the melanogenic apparatus of medullary cells is acquired from melanocytes)

IT **Hair**
(mouse, tyrosinase histochem.; tyramide-based tyrosinase assay (TTA) for fluorescent histochem. detection of tyrosinase and evidence that the melanogenic apparatus of medullary cells is acquired from melanocytes)

IT **146368-16-3D**, Cy3, conjugates with streptavidin
(Cy3; tyramide-based tyrosinase assay (TTA) for fluorescent histochem. detection of tyrosinase and evidence that the melanogenic apparatus of medullary cells is acquired from melanocytes)

REFERENCE COUNT: 45 THERE ARE 45 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 18 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:594968 HCAPLUS
DOCUMENT NUMBER: 137:151788
TITLE: Homo-doubly labeled compositions for the detection of enzyme activity in biological samples
INVENTOR(S): Packard, Beverly S.; Komoriya, Akira
PATENT ASSIGNEE(S): Oncoimmunin, Inc., USA
SOURCE: PCT Int. Appl., 97 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002061038	A2	20020808	WO 2001-US49781	2001

1221
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WO 2002061038 C2 20021128
WO 2002061038 A3 20030313
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA,
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GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG,
KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK,
MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI,
SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA,
ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT,
BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC,
NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW,
ML, MR, NE, SN, TD, TG
US 2003207264 A1 20031106 US 2000-747287
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US 6893868 B2 20050517
CA 2432973 AA 20020808 CA 2001-2432973
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EP 1356084 A2 20031029 EP 2001-998079
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MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR
PRIORITY APPLN. INFO.: US 2000-747287 A
2000
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US 1997-802981 A2
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US 1999-394019 A2
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WO 2000-US24882 A2
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WO 2001-US49781 W
2001
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AB The present invention provides for novel reagents whose fluorescence or absorption spectra change upon cleavage or a change in conformation of a backbone. Fluorescence or absorption spectra of these indicators change in the presence of active proteases, nucleases, glycosidases, and the like. The reagents comprise a backbone (e.g. nucleic acid, polypeptide, etc.) joining two chromophores (e.g. fluorophores) of the same species whereby the chromophores form an H-dimer resulting in quenching of the fluorescence of the fluorophores or a change in absorption spectra of the chromophores. When the backbone is cleaved or changes

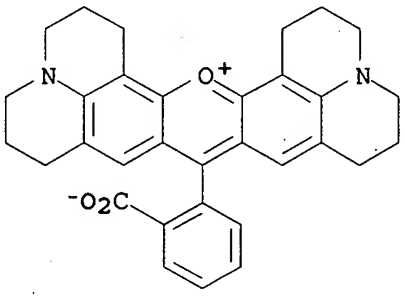
conformation, the chromophores are separated, no longer forming an H-type dimer, and are de-quenched thereby providing a detectable signal. The use of a single chromophore rather than an "acceptor-donor" fluorescence resonance energy transfer system offers synthesis and performance advantages.

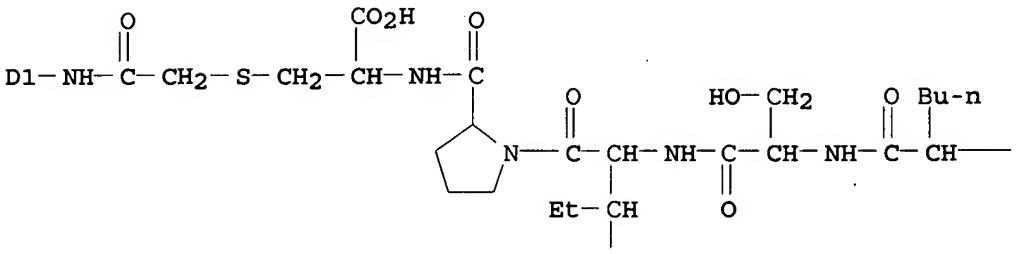
IT **212268-88-7**
(fluorogenic protease indicator; homo-doubly labeled compns. for detection of enzyme activity in biol. samples)

RN 212268-88-7 HCAPLUS

CN L-Cysteine, N-[4-[3,6-bis(dimethylamino)xanthylium-9-yl]-3-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-S-[2-[[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)phenyl]amino]-2-oxoethyl]-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A





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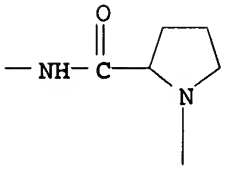
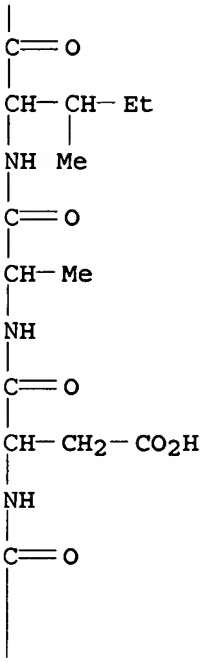


PAGE 2-A

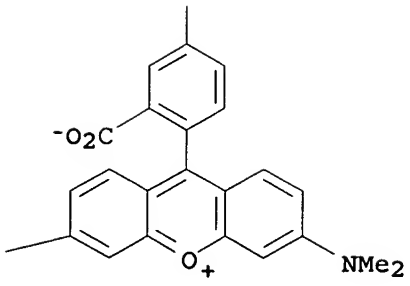
PAGE 2-B



PAGE 3-A

Me_2N

PAGE 3-B



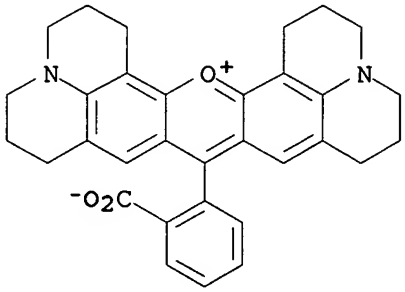
IT **212268-91-2 330443-38-4**
(homo-doubly labeled compns. for detection of enzyme activity

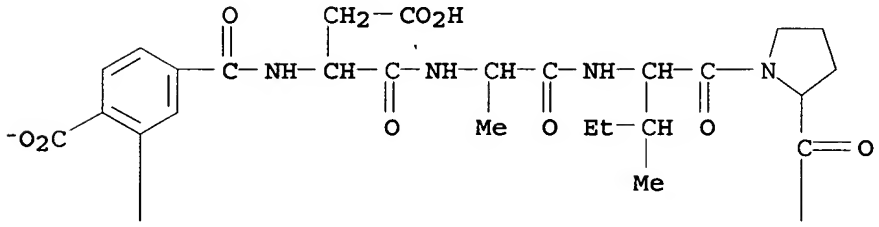
in biol. samples)

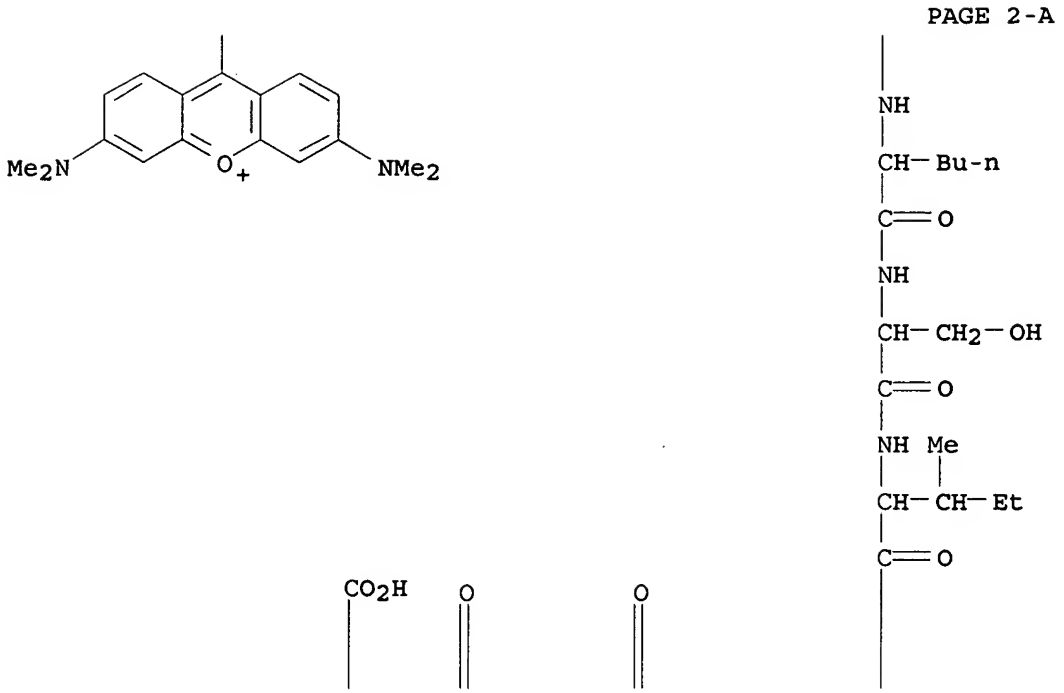
RN 212268-91-2 HCAPLUS

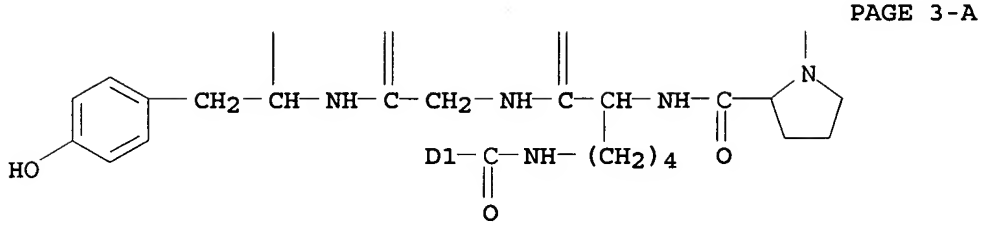
CN L-Tyrosine, N-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A





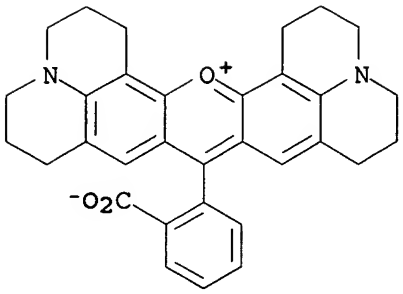


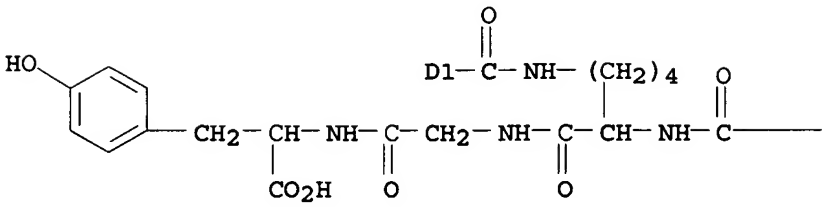


RN 330443-38-4 HCAPLUS

CN L-Tyrosine, N2-[3-[3,6-bis(dimethylamino)xanthylium-9-yl]-4-carboxybenzoyl]-L-lysyl-L-α-aspartyl-L-alanyl-L-isoleucyl-L-prolyl-L-norleucyl-L-seryl-L-isoleucyl-L-prolyl-N6-[3(or 4)-carboxy-4(or 3)-(2,3,6,7,12,13,16,17-octahydro-1H,5H,11H,15H-xantheno[2,3,4-ij:5,6,7-i'j']diquinolizin-18-ium-9-yl)benzoyl]-L-lysylglycyl-, bis(inner salt) (9CI) (CA INDEX NAME)

PAGE 1-A





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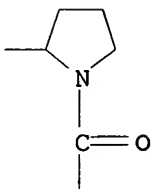

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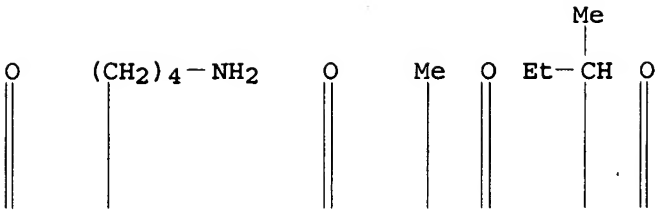

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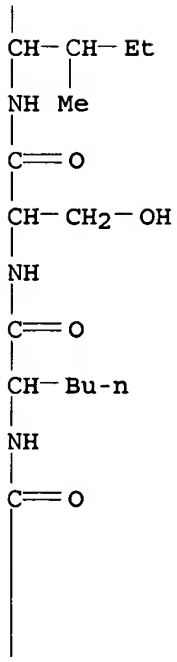

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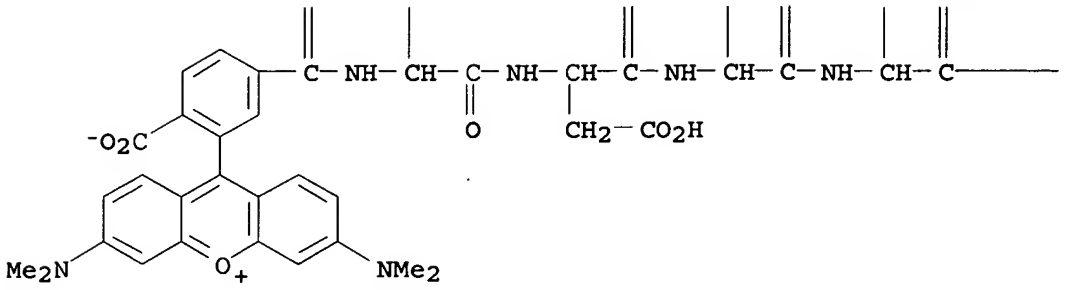

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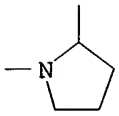


IC ICM C12N
CC 7-1 (Enzymes)
IT Conformation
(**hairpin** loop; homo-doubly labeled compns. for detection of enzyme activity in biol. samples)
IT Absorption spectra
Absorption spectroscopy
Acetyl group
Animal
Animal cell
Animal tissue
Animal tissue culture
Apoptosis
Blood analysis
Chromophores
Colorimetric indicators
Confocal laser scanning microscopy
Conformational transition
Cyanine **dyes**
Embryo, animal
Fluorescence excitation
Fluorescence microscopy
Fluorescence quenching
Fluorescent indicators
Fluorescent substances
Fluorometry
High throughput screening
Linking agents
Lymph
Saliva
Tert-butyl group
Urine analysis
(homo-doubly labeled compns. for detection of enzyme activity in biol. samples)
IT **212268-88-7**
(fluorogenic protease indicator; homo-doubly labeled compns. for detection of enzyme activity in biol. samples)

IT 203116-52-3 212207-37-9 **212268-91-2** 212268-95-6
330152-87-9 **330443-38-4**
(homo-doubly labeled compns. for detection of enzyme activity in biol. samples)

L49 ANSWER 19 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2002:172235 HCAPLUS
DOCUMENT NUMBER: 136:213182
TITLE: Methods employing fluorescence quenching by metal surfaces
INVENTOR(S): Dubertret, Benoit; Calame, Michel; Libchaber, Albert
PATENT ASSIGNEE(S): The Rockefeller University, USA
SOURCE: PCT Int. Appl., 62 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2002018951	A2	20020307	WO 2001-US41941	2001 0829
WO 2002018951	A3	20030403		
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
AU 2001093232	A5	20020313	AU 2001-93232	2001 0829
US 2004002089	A1	20040101	US 2003-374686	2003 0226

PRIORITY APPLN. INFO.:		
US 2000-228728P	P	2000 0829
US 2001-280350P	P	2001 0330
WO 2001-US41941	W	2001 0829

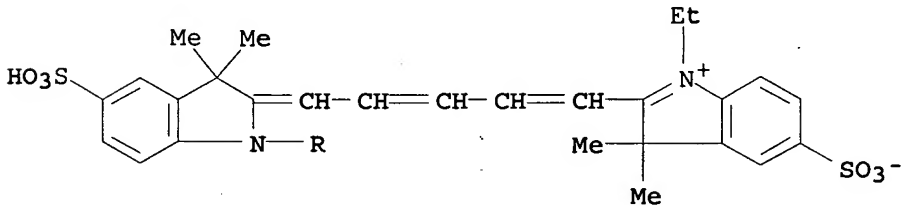
AB The invention is broadly related to methods for sensitively detecting proximity changes in systems that utilize an interacting

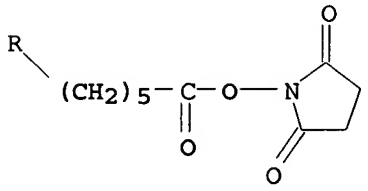
fluorophore and quencher. In such methods, a metal surface is used as the quencher. The metal surface may be a particle or film, such as nanoparticles or a coating, resp. Such systems provide an increase in sensitivity over previously-described quenchers, offering a signal-to-noise ratio of up to several orders of magnitude. Examples of such systems in which proximity changes are usefully detected include conformational changes in biomols. resulting from their interaction with their binding partners or ligands. Such biomols. may be, for example, nucleic acids, proteins, peptides, polysaccharides, or other polymeric, naturally-occurring or synthetic mols. These include, by way of non-limiting example, mol. beacons, which detect particular polynucleotide sequences; antibody-antigen interactions, and conformational changes in proteins upon binding to a ligand or substrate. A **hairpin** loop ssDNA was covalently linked to gold nanoparticles and to different fluorophores and the construct was used in single mismatch detection.

IT **146368-14-1**, Cy5
(methods employing fluorescence quenching by metal surfaces)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





IC ICM G01N033-542
ICS G01N033-58

CC 9-5 (Biochemical Methods)
Section cross-reference(s): 3, 73

IT Conformation
(**hairpin** loop; methods employing fluorescence quenching by metal surfaces)

IT Fluorescence quenching
Fluorescent **dyes**
Fluorometry
Molecular association
Nucleic acid hybridization
Proximity effect
Quantum dot devices
(methods employing fluorescence quenching by metal surfaces)

IT 989-38-8D, Rhodamine 6G, succinimidyl ester 2321-07-5D, Fluorescein, succinimidyl ester **146368-14-1**, Cy5 216972-99-5
(methods employing fluorescence quenching by metal surfaces)

L49 ANSWER 20 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:654637 HCAPLUS
DOCUMENT NUMBER: 135:215749
TITLE: **Keratin** fiber **dye** compositions containing indolizine cationic derivatives as coupling agents
INVENTOR(S): Breton, Philippe; Segala, Fabienne; Lagrange, Alain
PATENT ASSIGNEE(S): L'oreal, Fr.
SOURCE: Eur. Pat. Appl., 20 pp.
CODEN: EPXXDW
DOCUMENT TYPE: **Patent**
LANGUAGE: French
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1129690	A2	20010905	EP 2001-400430 <--	2001 0219
EP 1129690	A3	20011128		
EP 1129690	B1	20050105		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO				
FR 2805460	A1	20010831	FR 2000-2419 <--	2000 0225
AT 286376	E	20050115	AT 2001-400430 <--	2001 0219
ES 2236150	T3	20050716	ES 2001-1400430 <--	2001 0219
CA 2338258	AA	20010825	CA 2001-2338258 <--	2001 0226
JP 2001270813	A2	20011002	JP 2001-51270 <--	2001 0226
US 2001044974	A1	20011129	US 2001-791822 <--	2001 0226
US 2003028975	A9	20030213		
US 6579326	B2	20030617		
PRIORITY APPLN. INFO.:			FR 2000-2419 A	2000

0225

<--

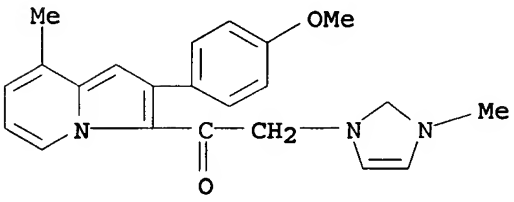
OTHER SOURCE(S): MARPAT 135:215749

AB The title oxidative **hair dye** compns. are disclosed. Thus, 7-methyl-2-phenyl-3-(2-pyridin-2-yl-ethyl)-indolizine was refluxed with di-Me sulfate in Et acetate for 2 h to obtain 1-methyl-2-[2-(7-methyl-2-phenyl-indolizin-3-yl)-ethyl]-pyridinium (I). A **hair dye** composition contained I 3x10-3, paratoluylenediamine 3x10-3 mole, water and excipients q.s. 100 g. Equal amount of the composition is mixed with 20 volume hydrogen peroxide and applied on the **hair** for 30 min. The **hair** is then rinsed with water, washed with **shampoo** and dried to obtain a golden blond color.

IT **358359-14-5 358359-15-6 358359-16-7**
358359-17-8 358359-18-9 358359-19-0
358359-20-3 358359-21-4 358359-22-5
358359-23-6 358359-24-7 358359-25-8
358359-26-9 358359-27-0 358359-28-1
358359-29-2
(**keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)

RN 358359-14-5 HCAPLUS

CN 1H-Imidazolium, 1-[2-[2-(4-methoxyphenyl)-8-methyl-3-indolizinyl]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)

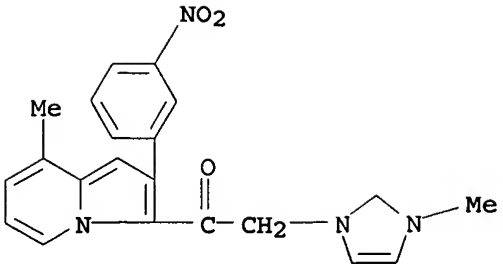


● Cl-

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

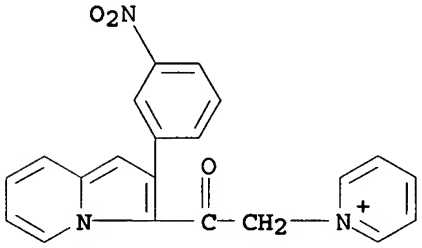
RN 358359-15-6 HCAPLUS

CN 1H-Imidazolium, 1-methyl-3-[2-[8-methyl-2-(3-nitrophenyl)-3-indolizinyl]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



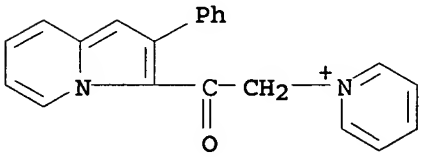
● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 358359-16-7 HCAPLUS
CN Pyridinium, 1-[2-[2-(3-nitrophenyl)-3-indolizinyl]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



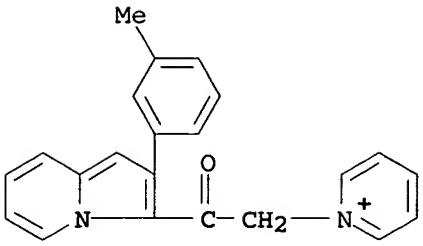
● Cl⁻

RN 358359-17-8 HCAPLUS
CN Pyridinium, 1-[2-oxo-2-(2-phenyl-3-indolizinyl)ethyl]-, chloride (9CI) (CA INDEX NAME)



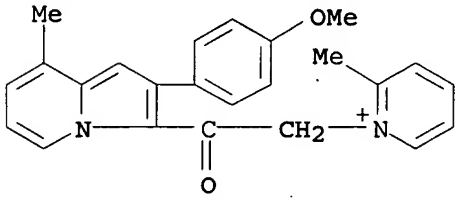
● Cl⁻

RN 358359-18-9 HCAPLUS
CN Pyridinium, 1-[2-[2-(3-methylphenyl)-3-indolizinyl]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



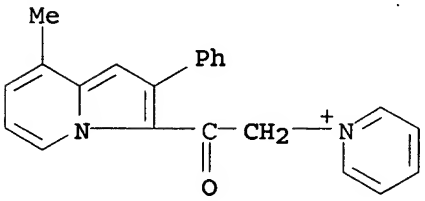
● Cl⁻

RN 358359-19-0 HCAPLUS
CN Pyridinium, 1-[2-[2-(4-methoxyphenyl)-8-methyl-3-indolizinyl]-2-oxoethyl]-2-methyl-, chloride (9CI) (CA INDEX NAME)



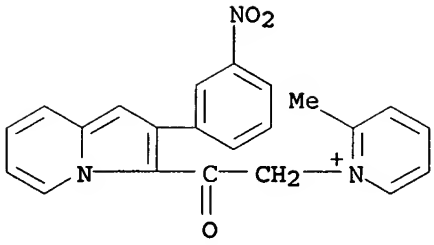
● Cl⁻

RN 358359-20-3 HCAPLUS
CN Pyridinium, 1-[2-(8-methyl-2-phenyl-3-indolizinyl)-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



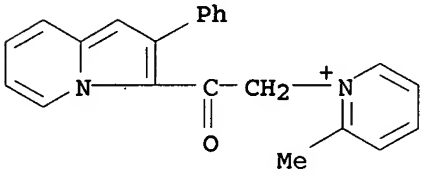
● Cl⁻

RN 358359-21-4 HCAPLUS
CN Pyridinium, 2-methyl-1-[2-[2-(3-nitrophenyl)-3-indolizinyl]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



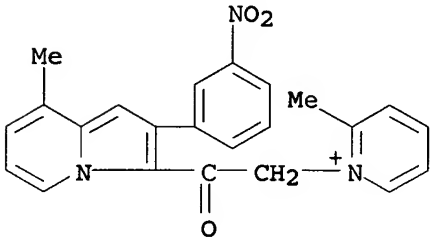
● Cl⁻

RN 358359-22-5 HCAPLUS
CN Pyridinium, 2-methyl-1-[2-oxo-2-(2-phenyl-3-indolizinyl)ethyl]-, chloride (9CI) (CA INDEX NAME)



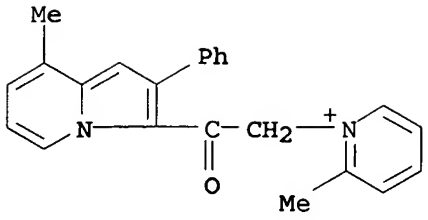
● Cl⁻

RN 358359-23-6 HCAPLUS
CN Pyridinium, 2-methyl-1-[2-[8-methyl-2-(3-nitrophenyl)-3-indolizinyl]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



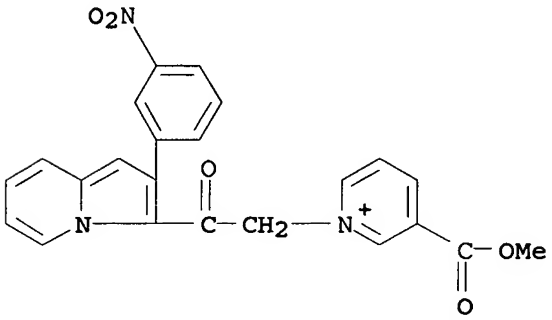
● Cl⁻

RN 358359-24-7 HCAPLUS
CN Pyridinium, 2-methyl-1-[2-(8-methyl-2-phenyl-3-indolizinyl)-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



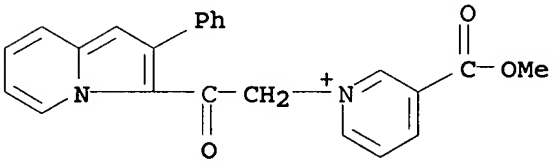
● Cl⁻

RN 358359-25-8 HCAPLUS
CN Pyridinium, 3-(methoxycarbonyl)-1-[2-[2-(3-nitrophenyl)-3-indolizinyl]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



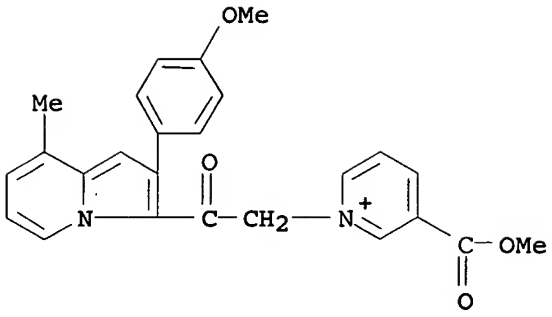
● Cl⁻

RN 358359-26-9 HCAPLUS
CN Pyridinium, 3-(methoxycarbonyl)-1-[2-oxo-2-(2-phenyl-3-indolizinyl)ethyl]-, chloride (9CI) (CA INDEX NAME)



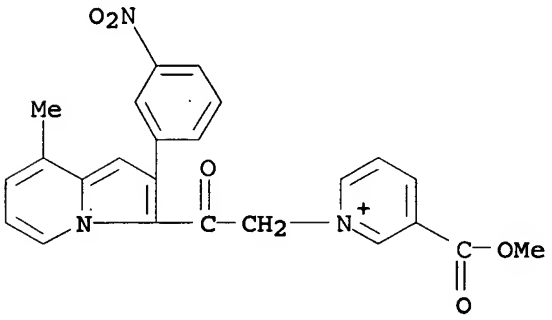
● Cl⁻

RN 358359-27-0 HCAPLUS
CN Pyridinium, 3-(methoxycarbonyl)-1-[2-[2-(4-methoxyphenyl)-8-methyl-3-indolizinyl]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



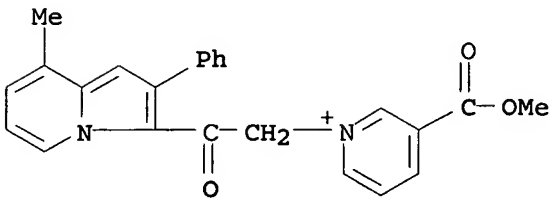
● Cl⁻

RN 358359-28-1 HCAPLUS
CN Pyridinium, 3-(methoxycarbonyl)-1-[2-[8-methyl-2-(3-nitrophenyl)-3-indolizinyl]-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



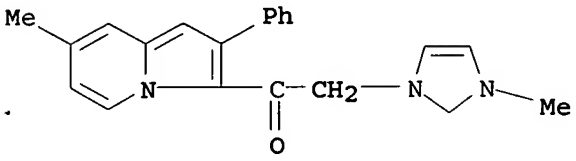
● Cl⁻

RN 358359-29-2 HCAPLUS
CN Pyridinium, 3-(methoxycarbonyl)-1-[2-(8-methyl-2-phenyl-3-indolizinyl)-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



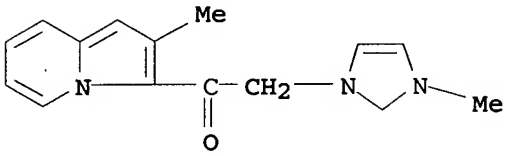
● Cl⁻

IT **358359-09-8P 358359-10-1P**
(**keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)
RN 358359-09-8 HCAPLUS
CN 1H-Imidazolium, 1-methyl-3-[2-(7-methyl-2-phenyl-3-indolizinyl)-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
RN 358359-10-1 HCAPLUS
CN 1H-Imidazolium, 1-methyl-3-[2-(2-methyl-3-indolizinyl)-2-oxoethyl]-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE
IC A61K007-13; C07D471-04
CC 62-3 (Essential Oils and Cosmetics)
Section cross-reference(s): 27
ST oxidative **hair dye** indolizine deriv coupler
IT Bromates
(alkali metal salts; **keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)
IT **Hair** preparations
(**dyes**, oxidative; **keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)
IT Coupling agents
Oxidizing agents
(**keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)
IT Enzymes, biological studies
(**keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)
IT Salts, biological studies
(of peroxy acids; **keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)

IT 92-65-9 93-05-0, N,N-Diethyl p-phenylenediamine 95-55-6, 2 aminophenol 95-55-6D, derivs. 95-70-5 99-98-9, N,N-Dimethyl p-phenylenediamine 101-54-2 106-50-3, 1,4-Benzenediamine, biological studies 106-50-3D, 1,4-Benzenediamine, derivs. 108-45-2D, 1,3-Benzenediamine, derivs. 123-30-8, p-Aminophenol 123-30-8D, derivs. 124-43-6 148-71-0, 4-Amino-N,N-diethyl-3-methyl aniline 399-95-1, 4-Amino 3-fluorophenol 399-96-2, 4 amino 2 fluorophenol 537-65-5 591-27-5D, derivs. 615-66-7, 2-Chloro-p-phenylenediamine 1630-11-1, 2,6-Diethyl p-phenylenediamine 2359-52-6 2359-53-7 2835-96-3, 4-amino 2 methylphenol 2835-98-5, 2 amino 5-methylphenol 2835-99-6, 4 amino 3 methylphenol 5306-96-7, 2,3-Dimethyl-p-phenylenediamine 5862-80-6 6393-01-7, 2,5-Dimethyl p-phenylenediamine 7218-02-2, 2,6-Dimethyl p-phenylenediamine 7575-35-1, N,N-Bis(β-hydroxyethyl) p-phenylenediamine 7722-84-1, Hydrogen peroxide, biological studies 9002-10-2, Tyrosinase 9003-99-0, Peroxidase 9055-15-6, Oxidoreductase 14791-78-7, 2-Fluoro p-phenylenediamine 15583-11-6 15583-12-7 17672-22-9, 2 amino 6-methylphenol 35682-64-5 35682-65-6 35691-87-3 35691-91-9 47139-07-1 47581-03-3 52200-90-5, 4-amino 2 methoxyphenol 63969-43-7 73793-80-3, 2-Hydroxymethyl p-phenylenediamine 79352-72-0, 4-amino 2 aminomethylphenol 80467-77-2, N-(2-Hydroxypropyl) p-phenylenediamine 80498-15-3, Laccase 93841-24-8, 2-β-Hydroxyethyl p-phenylenediamine 97902-52-8, 2-Isopropyl p-phenylenediamine 104333-09-7, 4-Amino 2-hydroxymethylphenol 105293-89-8, N,N-Dipropyl p-phenylenediamine 105607-68-9 110952-46-0, 4-Amino 2-(2-hydroxyethylaminomethyl)phenol 128729-30-6 128729-31-7 129697-50-3, 5-acetamido 2 aminophenol 130582-53-5 135855-34-4 135855-35-5 168202-61-7, 4 amino 3 hydroxymethylphenol 189261-56-1 221110-58-3 358359-11-2 358359-13-4 **358359-14-5 358359-15-6 358359-16-7 358359-17-8 358359-18-9 358359-19-0 358359-20-3 358359-21-4 358359-22-5 358359-23-6 358359-24-7 358359-25-8 358359-26-9 358359-27-0 358359-28-1 358359-29-2** 358359-30-5 358359-31-6
(**keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)

IT **358359-09-8P 358359-10-1P**
(**keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)

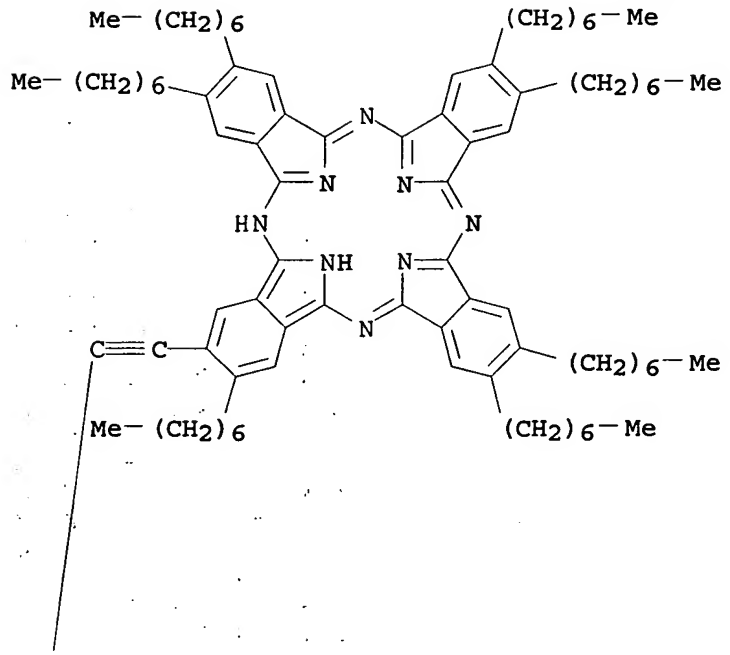
IT 77-78-1, Dimethylsulfate 79-04-9, Chloroacetic acid chloride 616-47-7, n Methylimidazole 768-18-3, 2 methylindolizine 1337-81-1, Vinyl pyridine 26557-56-2, 7-Methyl-2-phenyl-indolizine
(**keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)

IT 358359-08-7P
(**keratin** fiber **dye** compns. containing indolizine cationic derivs. as coupling agents)

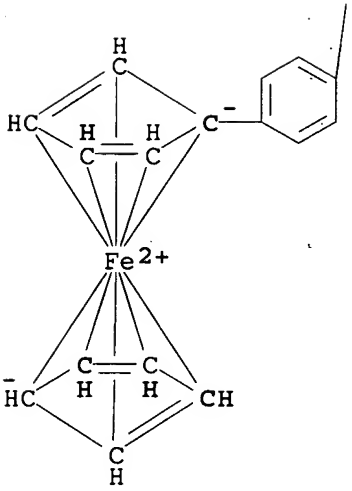
L49 ANSWER 21 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2001:55831 HCAPLUS
DOCUMENT NUMBER: 134:287704
TITLE: Design and Synthesis of Porphyrin-Based Optoelectronic Gates
AUTHOR(S): Ambroise, Arounaguiry; Wagner, Richard W.; Rao, Polisetti Dharma; Riggs, Jennifer A.; Hascoat, Philippe; Diers, James R.; Seth,

Jyoti; Lammi, Robin K.; Bocian, David F.; Holten, Dewey; Lindsey, Jonathan S.
CORPORATE SOURCE: Department of Chemistry, University of California, Riverside, CA, 92521-0403, USA
SOURCE: Chemistry of Materials (2001), 13(3), 1023-1034
CODEN: CMATEX; ISSN: 0897-4756
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English
AB Two porphyrin-based optoelectronic gates and several prototypical redox-switching components of gates have been synthesized for studies in mol. photonics. Linear and T-shaped mol. optoelectronic gates contain a boron-dipyrrin (BDPY) **dye** as the input unit, a Zn porphyrin as the transmission unit, a free base (Fb) porphyrin as the output unit, and a magnesium (Mg) porphyrin as the redox-switching unit. The linear gate and T gate were synthesized using a mol. building block approach. In the linear gate synthesis, a BDPY-Zn porphyrin dyad was coupled with a Fb porphyrin-Mg porphyrin dimer. The synthesis of the T gate utilized a Zn porphyrin bearing four different meso substituents: mesityl, 4-iodophenyl, 4-[2-(trimethylsilyl)ethynyl]phenyl, and 4-[2-(triisopropyl)ethynyl]phenyl. Attachment of the three different groups to the Zn porphyrin was accomplished using successive Pd-mediated coupling reactions in the following sequence: Fb porphyrin (output unit), BDPY **dye** (input unit), and Mg porphyrin (redox-switching unit). Both the linear gate and T gate syntheses introduce the Mg porphyrin at the final step to minimize demetalation of the Mg porphyrin. Refinements to various components of these gates were investigated through the preparation of a ferrocene-porphyrin, a ferrocene-phthalocyanine, and a ferrocene-porphyrin-phthalocyanine. A dyad motif for studies of optically based redox switching was prepared that contains a derivative of Ru(bpy)3X2 coupled to a porphyrin. From these and related studies have emerged a number of design considerations for the development of refined optoelectronic gates.
IT **332349-66-3P**
(synthesis and properties of ferrocene-porphyrin dyads for optoelectronic gates)
RN 332349-66-3 HCAPLUS
CN Ferrocene, [4-[(3,9,10,16,17,23,24-heptaheptyl-29H,31H-phthalocyanin-2-yl)ethynyl]phenyl]- (9CI) (CA INDEX NAME)

PAGE 1-A



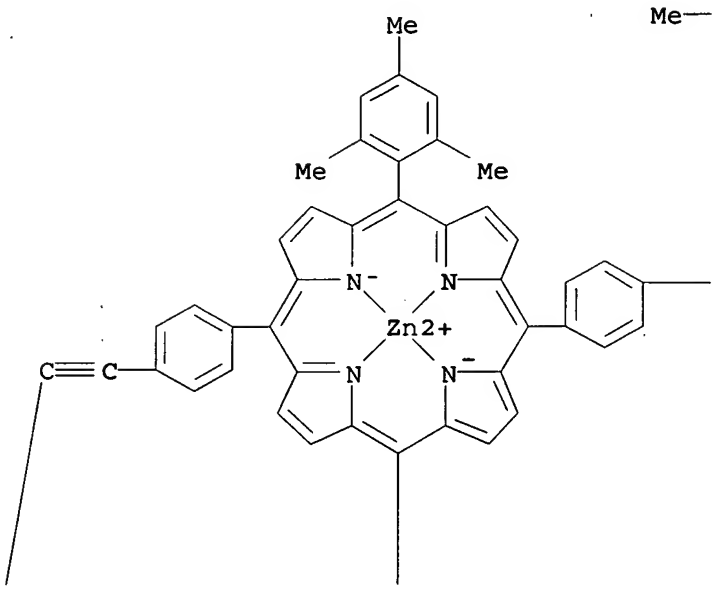
PAGE 2-A



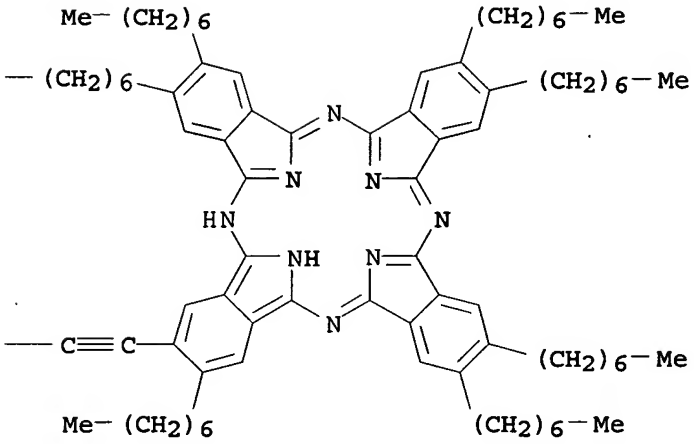
IT **332349-67-4P**
(synthesis and properties of ferrocene-porphyrin-phthalocyanine triad for porphyrin-based optoelectronic gates)
RN 332349-67-4 HCAPLUS
CN Zinc, [[4-[[4-[15-[4-[(3,9,10,16,17,23,24-heptaheptyl-29H,31H-phthalocyanin-2-yl)ethynyl]phenyl]-10,20-bis(2,4,6-trimethylphenyl)-21H,23H-porphin-5-yl-κN21,κN22,κN23,κN24]phenyl]ethynyl]phenyl]

ferrocenato(2-)]-, (SP-4-2)- (9CI) (CA INDEX NAME)

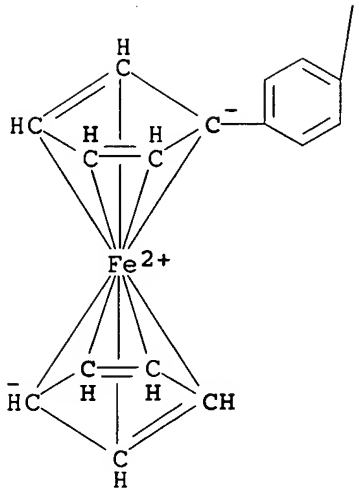
PAGE 1-A

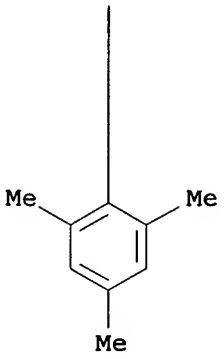


PAGE 1-B



PAGE 2-A





CC 74-1 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)
Section cross-reference(s): 72, 73, 78

ST porphyrin based optoelectronic gate design synthesis; magnesium zinc porphyrin boron dipyrrin **dye** optoelectronic gate design; photophysics electrochem porphyrin based optical gate design; ferrocene porphyrin phthalocyanine optoelectronic gate redox switch

IT 159152-14-4, 5-Mesityldipyrromethane
(condensation with boron-dipyrrin **dye** and iodobenzaldehyde in synthesis of porphyrin-based optoelectronic gate component)

IT 15164-44-0, 4-Iodobenzaldehyde
(condensation with boron-dipyrrin **dye** and mesityldipyrromethane in synthesis of porphyrin-based optoelectronic gate component)

IT 332349-65-2P **332349-66-3P**
(synthesis and properties of ferrocene-porphyrin dyads for optoelectronic gates)

IT **332349-67-4P**
(synthesis and properties of ferrocene-porphyrin-phthalocyanine triad for porphyrin-based optoelectronic gates)

REFERENCE COUNT: 109 THERE ARE 109 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 22 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:786466 HCAPLUS
DOCUMENT NUMBER: 134:128072
TITLE: FRET Fluctuation Spectroscopy: Exploring the Conformational Dynamics of a DNA **Hairpin** Loop
AUTHOR(S): Wallace, Mark Ian; Ying, Liming; Balasubramanian, Shankar; Klenerman, David
CORPORATE SOURCE: Department of Chemistry, University of Cambridge, Cambridge, CB2 1EW, UK
SOURCE: Journal of Physical Chemistry B (2000), 104(48), 11551-11555

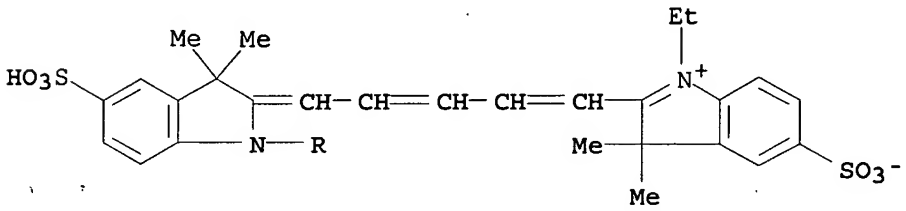
CODEN: JPCBFK; ISSN: 1089-5647
PUBLISHER: American Chemical Society
DOCUMENT TYPE: Journal
LANGUAGE: English

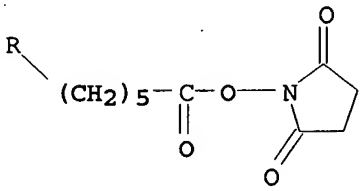
AB The motions of a **dye**-labeled DNA **hairpin** loop (Cy5-5'-GGGTT-(A)30-AACCC-3'-TMR) have been investigated through the fluctuations in proximity ratio from fluorescence resonance energy transfer (FRET). We examine three solution conditions: (1) MilliQ water, (2) Tris-EDTA buffer, and (3) Tris-EDTA buffer plus an excess of DNA complementary to the loop sequence, (T)30. Correlations in proximity ratio show submillisecond dynamics. Static heterogeneity is revealed from the distribution of proximity ratio amplitudes. The observed stretched exponential kinetics are consistent with a model based on the transition between two states over a complex energy landscape.

IT **146368-14-1**, Cy5
(Cy5; FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





CC 9-6 (Biochemical Methods)

ST FRET fluctuation spectroscopy DNA **hairpin** loop conformation

IT Fluorometry
Resonance energy
Solvent effect
(FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)

IT DNA
(FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)

IT Conformation
(**hairpin** loop; FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)

IT **146368-14-1**, Cy5

(Cy5; FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)
IT 120718-52-7
(FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)
IT 321924-56-5D, 5'-indodicarbocyanine and 3'-TMR labeled
(FRET fluctuation spectroscopy for exploring conformational dynamics of a DNA **hairpin** loop)
REFERENCE COUNT: 41 THERE ARE 41 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 23 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 2000:368704 HCAPLUS
DOCUMENT NUMBER: 133:14300
TITLE: In situ method of analyzing cells by staining with multiple stains and using a spectral data collection device
INVENTOR(S): Garini, Yuval; Mcnamara, George; Soenksen, Dirk G.; Cabib, Dario; Buckwald, Robert A.
PATENT ASSIGNEE(S): Applied Spectral Imaging Ltd., Israel
SOURCE: PCT Int. Appl., 129 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 6
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2000031534	A1	20000602	WO 1999-US27000	1999 1116
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RW: GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
EP 767361	A2	19970409	EP 1993-203737	1993 0722
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EP 767361	B1	20000301		
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EP 957345	A2	19991117	EP 1999-111903	1993 0722
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EP 957345	A3	20000503		
EP 957345	B1	20021113		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE				
EP 957346	A2	19991117	EP 1999-111904	

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EP 957346 A3 20000503
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE
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ES 2188065 T3 20030616 ES 1999-111903
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DE 29624210 U1 20010628 DE 1996-29624210
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US 6165734 A 20001226 US 1998-196690
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EP 1131631 A1 20010912 EP 1999-963904
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R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE,
MC, PT, IE, SI, LT, LV, FI, RO
JP 2002530676 T2 20020917 JP 2000-584297
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PRIORITY APPLN. INFO.: US 1998-196690 A
1998
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WO 1999-US27000 W

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1116

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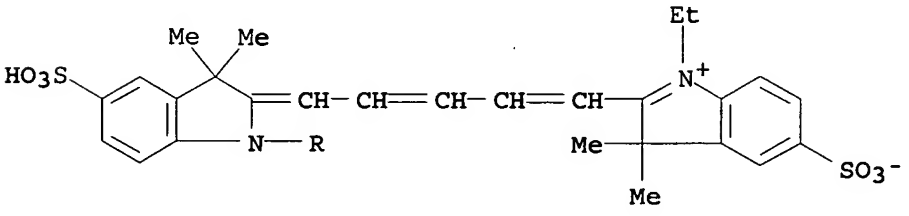
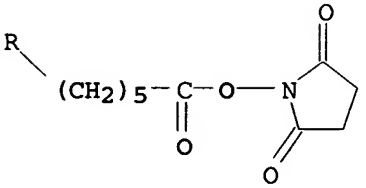
AB A method of in situ anal. of a biol. sample comprises the steps of (a) staining the biol. sample with N stains of which a first stain is selected from the group consisting of a first immunohistochem. stain, a first histol. stain and a first DNA ploidy stain, and a second stain is selected from the group consisting of a second immunohistochem. stain, a second histol. stain and a second DNA ploidy stain, with provisions that N is an integer greater than three and further that (i) if the first stain is the first immunohistochem. stain then the second stain is either the second histol. stain or the second DNA ploidy stain; (ii) if the first stain is the first histol. stain then the second stain is either the second immunohistochem. stain or the second DNA ploidy stain; whereas (iii) if the first stain is the first DNA ploidy stain then the second stain is either the second immunohistochem. stain or the second histol. stain; and (b) using a spectral data collection device for collecting spectral data from the biol. sample, the spectral data collection device and the N stains are selected so that a spectral component associated with each of the N stains is collectible. Figure (1) shows a block diagram illustrating the main components of an imaging spectrometer. Breast cancer tissue samples were stained with two histol. stains (hematoxylin and eosin), and four immunohistochem. stains (DAB, AEC, Fast Red, and BCIP/NBT) and measured using the Spectracube system.

IT **146368-14-1**, Cy5 **146368-16-3**, Cy3
(as label; in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)

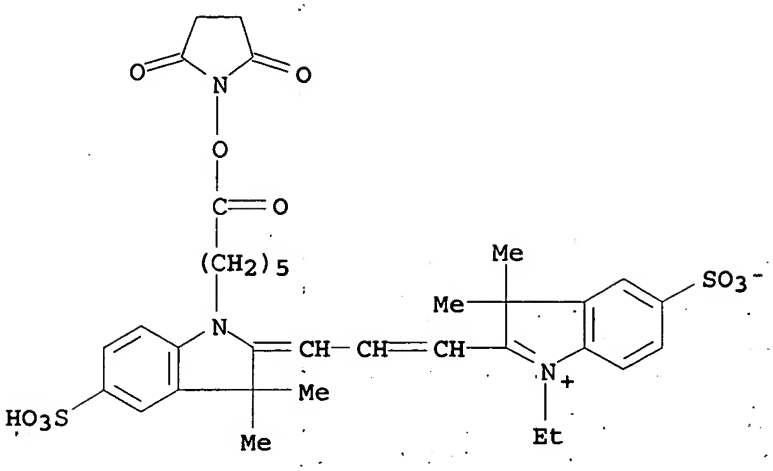




RN 146368-16-3 HCAPLUS

CN 3H-Indolium, 2-[3-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1-propenyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA

INDEX NAME)



IC ICM G01N033-53
ICS C12Q001-54; C12Q001-28; C12Q001-00; C12Q001-42
CC 9-4 (Biochemical Methods)
Section cross-reference(s): 3, 14
IT **Dyes**
(Alexa; in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)
IT **Dyes**
(IR, as label; in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)
IT CA 125 (carbohydrate antigen)
CA19-9 antigen
CD14 (antigen)
CD19 (antigen)
CD20 (antigen)
CD22 (antigen)
CD3 (antigen)
CD30 (antigen)
CD34 (antigen)
CD38 (antigen)
CD4 (antigen)
CD45 (antigen)
CD45RA (antigen)
CD45RO (antigen)
CD5 (antigen)
CD7 (antigen)
CD8 (antigen)
Carcinoembryonic antigen
Epidermal growth factor receptors
Estrogen receptors
Fas antigen
Fibrins
Keratins
Ki-67 antigen
P-glycoproteins
Progesterone receptors
Proliferating cell nuclear antigen
Prostate-specific antigen

Ras proteins
Transferrin receptors
Vimentins
neu (receptor)
p53 (protein)
(antibody to; in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)

IT Algorithm
Animal tissue
Biological materials
Cell
Colorimetry
Fluorescent **dyes**
Histochemistry
Imaging
Interferometry
Luminescence
Optical dispersion
Optical filters
Ploidy
Spectroscopy
Staining, biological
Stains, biological
(in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)

IT 53-57-6, NADPH 58-68-4, NADH 60-18-4, L-Tyrosine, biological studies 73-22-3, L-Tryptophan, biological studies 146-14-5, FAD 1461-15-0, Calcein 2321-07-5, Fluorescein 9001-37-0, Glucose oxidase 9001-78-9 9003-99-0, Peroxidase 9014-00-0, Luciferase 9031-11-2, β-Galactosidase 13558-31-1D, derivs. 41085-99-8 53213-83-5, DiOC7(3) 69432-00-4, Calcofluor White 82354-19-6, Texas Red 88235-25-0 98285-52-0, Spectrum Orange 102185-03-5, Cy2 138026-71-8, BODIPY **146368-14-1**, Cy5 **146368-16-3**, Cy3 148504-34-1, Calcein-AM 159501-37-8, Cyclic GDP-Ribose 167095-09-2, MitoTracker Red 169799-14-8, Cy 7 172971-77-6 172971-78-7 189767-45-1, Cy 3.5 189767-52-0, FluorX 195395-80-3, Spectrum Green 220356-37-6, VECTOR Red 223786-97-8, Spectrum Aqua 272457-05-3, Cy 0 272457-06-4, Cy 0.5 272457-19-9, Cy 1 (**dye**) 272457-27-9, Cy 1.5 272457-33-7, CryptoFluor S 272457-83-7, Spectrum Blue 272457-89-3, Spectrum Gold 272458-01-2, Spectrum Red
(as label; in situ method of analyzing cells by staining with multiple stains and using a spectral data collection device)

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 24 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:502905 HCAPLUS
DOCUMENT NUMBER: 131:158834
TITLE: Cationic **dyes**, their preparation, and **hair** preparations containing such **dyes**
INVENTOR(S): Braun, Hans-Juergen; Czigler, Thomas; Umbricht, Gisela; Goettel, Otto; Kripp, Thomas-Christian
PATENT ASSIGNEE(S): Wella A.-G., Germany
SOURCE: Ger. Offen., 24 pp.

CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 19802940	A1	19990805	DE 1998-19802940 <--	19980127
DE 19802940	C2	20000203		
PRIORITY APPLN. INFO.:			DE 1998-19802940 <--	19980127

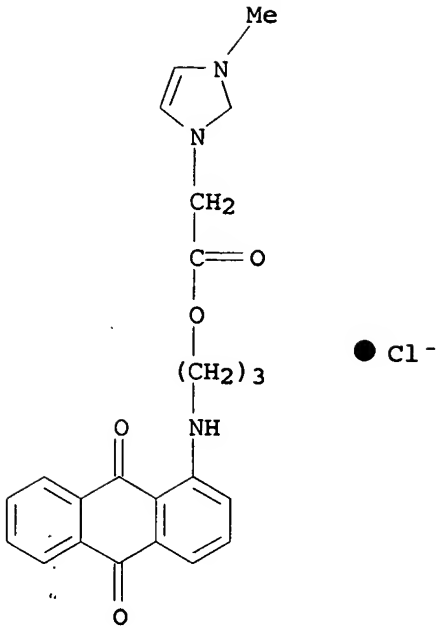
OTHER SOURCE(S): MARPAT 131:158834

AB Nonoxidative **hair dyes** have the structure (RXCOY)nBz+ zA-, where A is an anion, B is a group containing pos. charged N, P or S, especially a quaternized aromatic heterocycle (such as imidazolium), R is a chromophoric radical, X is O or NR1 (R1 = H, C1-6 alkyl), and Y is CH2 or an (un)substituted C2-6 alkylene group. Thus, C.I. Disperse Red 13 was esterified with ClCH2COCl, and the product was used to quaternize N-methylimidazole to produce a cationic **dye**. **Hair** was contacted with a solution of 2.5 mmol of the **dye**, 10.0 g EtOH, and 10.0 g 25% aqueous polyethylene glycol monostearyl ether in 100 g H2O for 20 min at 40°, rinsed, **shampooed**, rinsed and dried to show a Bordeaux red color with L*a*b* values L = 28.5, a = 36.6, and b = 8.9, which withstood ≥10 washings.

IT **237065-49-5P 237065-50-8P 237065-51-9P**
(preparation of cationic **hair dyes**)

RN 237065-49-5 HCAPLUS

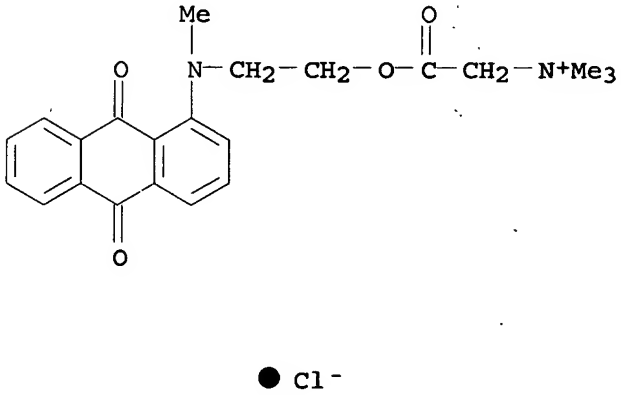
CN 1H-Imidazolium, 1-[2-[3-[(9,10-dihydro-9,10-dioxo-1-anthracenyl)amino]propoxy]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

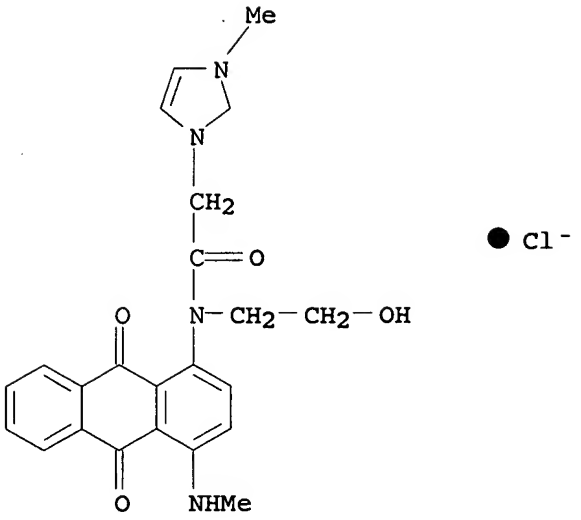
RN 237065-50-8 HCAPLUS

CN Ethanaminium, 2-[2-[(9,10-dihydro-9,10-dioxo-1-anthracenyl)methylamino]ethoxy]-N,N,N-trimethyl-2-oxo-, chloride (9CI) (CA INDEX NAME)



RN 237065-51-9 HCAPLUS

CN 1H-Imidazolium, 1-[2-[[9,10-dihydro-4-(methylamino)-9,10-dioxo-1-anthracenyl](2-hydroxyethyl)amino]-2-oxoethyl]-3-methyl-, chloride (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IC ICM C09B069-06
ICS A61K007-13; D06P001-41; D06P003-18; C07F009-54; C07C245-02; C07C229-00; C07C381-12

ICA C09B051-00; C09B019-02; C09B029-00; C09B001-00; C09B057-00

CC 41-3 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 62

ST cationic azo **hair dye**

IT **Hair** preparations
(**dyes**, cationic; preparation of cationic **hair dyes**)

IT 19277-21-5P 237065-32-6P 237065-33-7P 237065-34-8P
237065-35-9P 237065-36-0P 237065-38-2P 237065-39-3P
237065-40-6P 237065-41-7P 237065-42-8P 237065-43-9P
237065-44-0P 237065-45-1P 237065-46-2P 237065-47-3P
237065-48-4P **237065-49-5P 237065-50-8P**
237065-51-9P 237065-52-0P 237065-54-2P 237065-55-3P
237065-56-4P 237065-57-5P 237065-58-6P 237065-59-7P
237065-60-0P 237065-61-1P 237065-62-2P 237065-63-3P
237065-64-4P 237065-65-5P 237065-66-6P 237065-67-7P
(preparation of cationic **hair dyes**)

IT 24304-85-6P 66261-56-1P 79307-81-6P 79307-82-7P
237065-21-3P 237065-22-4P 237065-23-5P 237065-24-6P
237065-25-7P 237065-26-8P 237065-27-9P 237065-28-0P
237065-29-1P 237065-30-4P
(preparation of cationic **hair dyes**)

IT 75-50-3, Trimethylamine, reactions 79-04-9, Chloroacetyl chloride 91-22-5, Quinoline, reactions 110-86-1, Pyridine, reactions 121-44-8, reactions 280-57-9, DABCO 539-17-3 616-47-7, N-Methylimidazole 625-36-5, 3-Chloropropionyl chloride 626-67-5, 1-Methylpiperidine 998-40-3, Tributylphosphine 1072-62-4, 2-Ethylimidazole 1122-58-3, 4-(Dimethylamino)pyridine 2478-13-9 2653-68-1, 1-[(4-Aminophenyl)azo]-2-naphthol 2872-52-8, C.I. Disperse Red 1 3180-81-2, C.I. Disperse Red 13 4540-00-5, C.I. Disperse Red 7 5960-58-7, 1-[(2-Hydroxyethyl)methylamino]anthraquinone 7623-09-8, 2-Chloropropionyl chloride 13556-29-1, 1-[(3-Aminopropyl)amino]anthraquinone 22118-09-8, Bromoacetyl chloride

50995-97-6, 2-Allylimidazole 59320-13-7 62956-45-0, 1-[(3-Hydroxypropyl)amino]anthraquinone 68516-81-4 86722-66-9, 1-(2-Hydroxyethylamino)-4-(methylamino)anthraquinone 88638-70-4 100834-34-2 132246-82-3 237065-17-7, N-(2-Aminoethyl)-4-[(4-nitrophenyl)azo]aniline 237065-18-8 237065-19-9 237065-31-5
(preparation of cationic **hair dyes**)

L49 ANSWER 25 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1999:330482 HCAPLUS
DOCUMENT NUMBER: 130:335014
TITLE: Distinguishing of viable, early apoptotic and necrotic cells
INVENTOR(S): Bolton, Wade E.; Koester, Steven K.
PATENT ASSIGNEE(S): Coulter International Corp., USA
SOURCE: PCT Int. Appl., 21 pp.
CODEN: PIXXD2
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9924832	A1	19990520	WO 1998-US23667	1998 1106 <--
W: JP				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
US 5945291	A	19990831	US 1997-966937	1997 1110 <--
PRIORITY APPLN. INFO.:			US 1997-966937 A	1997 1110 <--

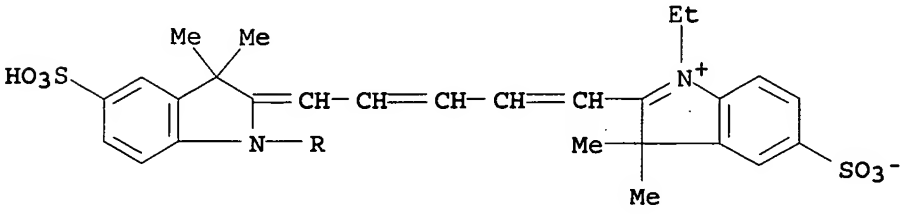
AB The present invention provides a method for distinguishing between viable, early apoptotic, late apoptotic and necrotic cells utilizing multi-color immunofluorescence. The method of the invention involves providing a first binding protein specific for an apoptotic-associated antigen labeled with a first visually detectable label, a second binding protein specific for an apoptotic-associated antigen labeled with a second visually detectable label, and a third binding protein specific for an intracellular antigen common to eukaryotic cells labeled with third visually detectable label, wherein said first, second, and third visually detectable labels are distinguishable. In a currently preferred embodiment, the invention provides a method involving the steps of contacting a sample of cells with anti-tubulin-FITC, thereby providing pos. and neg. anti-tubulin-FITC populations, contacting the cells with APO2.7-phycoerythrin, permeabilizing the cells with digitonin, staining the cells with APO2.7-phycoerythrin-cyanin **dye** 5, and analyzing the cells by flow cytometry to distinguish viable cells, early apoptotic cells, late apoptotic cells and necrotic cells.

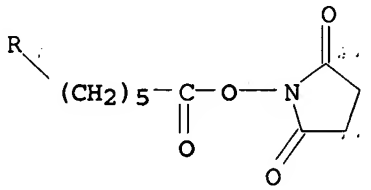
IT **146368-14-1**, Cy5

(Cy 5; distinguishing of viable, early apoptotic and necrotic cells by immunofluorescence staining)

RN 146368-14-1 HCAPLUS

CN 3H-Indolium, 2-[5-[1-[6-[(2,5-dioxo-1-pyrrolidinyl)oxy]-6-oxohexyl]-1,3-dihydro-3,3-dimethyl-5-sulfo-2H-indol-2-ylidene]-1,3-pentadienyl]-1-ethyl-3,3-dimethyl-5-sulfo-, inner salt (9CI) (CA INDEX NAME)





IC ICM G01N033-50
ICS G01N033-569; G01N033-68; G01N015-14

CC 9-10 (Biochemical Methods)
Section cross-reference(s): 6, 13

IT Actins
Keratins
Phosphatidylserines
Tubulins
(distinguishing of viable, early apoptotic and necrotic cells by immunofluorescence staining)

IT **146368-14-1**, Cy5
(Cy 5; distinguishing of viable, early apoptotic and necrotic cells by immunofluorescence staining)

REFERENCE COUNT: 4 THERE ARE 4 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L49 ANSWER 26 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN

ACCESSION NUMBER: 1991:243743 HCAPLUS
DOCUMENT NUMBER: 114:243743
TITLE: Photoaffinity labeling and biochemical characterization of binding proteins for pheromones, juvenile hormones, and peptides
AUTHOR(S): Prestwich, Glenn D.
CORPORATE SOURCE: Dep. Chem., State Univ. New York, Stony Brook, NY, 11794-3400, USA
SOURCE: Insect Biochemistry (1991), 21(1), 27-40
CODEN: ISBCAN; ISSN: 0020-1790
DOCUMENT TYPE: Journal
LANGUAGE: English

AB Radiolabeled photoaffinity analogs can be used to purify and characterize proteins involved in pheromone perception, juvenile

hormone (JH) action, and neuropeptide reception. Several photoaffinity analogs and purification strategies are described for each of these physiol. targets. First, a diazoacetate photoaffinity label is used to selectively modify the pheromone binding protein of the gypsy moth, Lymantria dispar. Reverse-phase HPLC is then employed to fractionate the male antennal proteins. Second, a tandem procedure involving preparative isoelec. focusing (IEF) and ion-exchange (IEX) HPLC is employed for the purification of the Manduca sexta hemolymph juvenile hormone binding protein (JHBP), which has now been cloned and sequenced. A sep. application of this strategy for the purification of the 29-kDa JH I/methoprene receptor proteins from epidermal nuclei of M. sexta larvae is outlined. A new photolabel, farnesyl diazoketone, has been employed for the characterization of crustacean hemolymph Me farnesoate binding proteins. Third, the development of neuropeptide photoaffinity labels is described for two systems: (1) the red **pigment** concentrating hormone (RPCH) of shrimp and (2) the allatostatins isolated from the brain of the cockroach Diploptera punctata.

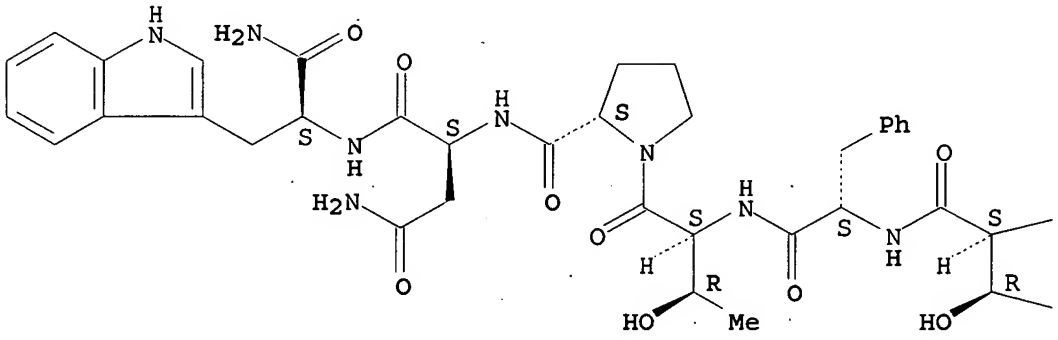
IT **133953-99-8P**
(preparation and reaction with sodium iodide)

RN 133953-99-8 HCAPLUS

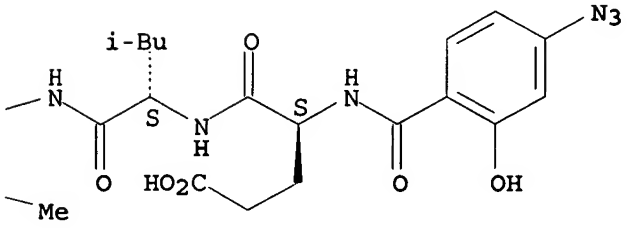
CN L-Tryptophanamide, N-(4-azido-2-hydroxybenzoyl)-L-α-glutamyl-L-leucyl-L-threonyl-L-phenylalanyl-L-threonyl-L-prolyl-L-asparaginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



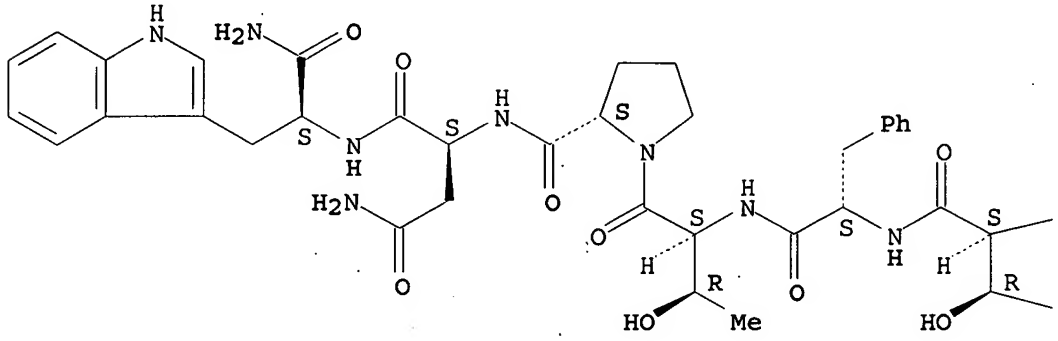
PAGE 1-B



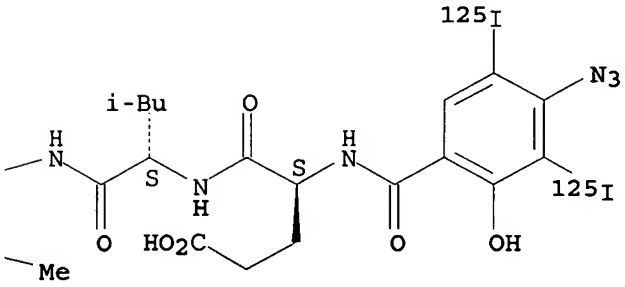
IT **133954-00-4P**
(preparation of, as allatostatin receptor photoaffinity label)
RN 133954-00-4 HCAPLUS
CN L-Tryptophanamide, N-[4-azido-2-hydroxy-3,5-di(iodo-125I)benzoyl]-L-α-glutamyl-L-leucyl-L-threonyl-L-phenylalanyl-L-threonyl-L-prolyl-L-asparaginyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A



PAGE 1-B



CC 9-5 (Biochemical Methods)
Section cross-reference(s): 12
IT Shrimp
(red **pigment** concentrating hormone of, photoaffinity label for)
IT Nervous system
(antenna, sensory **hair**, pheromone-binding proteins of, of insect, photoaffinity labeling probes for)
IT **133953-99-8P**
(preparation and reaction with sodium iodide)
IT **133954-00-4P** 133954-01-5P
(preparation of, as allatostatin receptor photoaffinity label)

L49 ANSWER 27 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1990:181395 HCAPLUS
DOCUMENT NUMBER: 112:181395
TITLE: Manufacture of metal phthalocyanine

pigments in the presence of cyanuric acid and its derivatives

INVENTOR(S): Segawa, Tomio; Maruyama, Kazuhiro; Ninomiya, Ritsu; Suyama, Genichi

PATENT ASSIGNEE(S): Kawasaki Kasei Chemicals, Ltd., Japan

SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF

DOCUMENT TYPE: **Patent**

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 01178556	A2	19890714	JP 1987-336849 <--	1987 1231
JP 07119369	B4	19951220		
US 4906747	A	19900306	US 1988-284613 <--	1988 1215

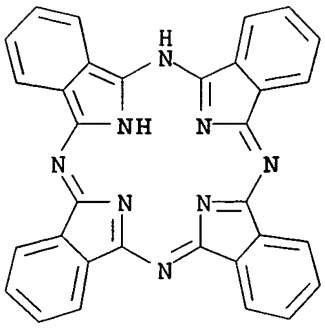
PRIORITY APPLN. INFO.: JP 1987-336849 A 1987 1231 <--

AB The title **pigments** are prepared by heating phthalic anhydride (and/or derivs.), urea, and metal compds. in the presence of a catalyst in an organic solvent or by heating phthalonitrile and metals or metal compds. in organic solvents, wherein the reaction is carried out in the presence of cyanuric acid and/or its derivs., resulting in high phthalocyanine yields without thickening of the reaction mixture during the reaction. Thus, phthalimide, urea, CuCl, NH4 molybdate, cyanuric acid, and tert-amylbenzene were treacted together at 170-210° for 4.5 h. The reaction mixture showed good flowability throughout the reaction, and the crude Cu phthalocyanine yield was 97 mol%.

IT **21328-73-4P**, Calcium phthalocyanine
(manufacture of, for **pigments**, in presence of cyanuric acid derivs., with improved yield and workability)

RN 21328-73-4 HCAPLUS

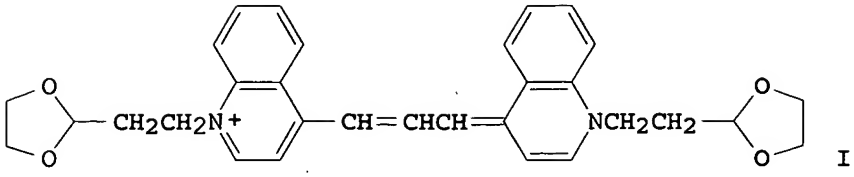
CN 29H,31H-Phthalocyanine, calcium salt (1:1) (9CI) (CA INDEX NAME)



● Ca

IC ICM C09B047-06
ICS C07D487-22; C09B047-067
CC 41-7 (Dyes, Organic Pigments, Fluorescent Brighteners, and Photographic Sensitizers)
Section cross-reference(s): 42
ST metal phthalocyanine **pigment** manuf; cyanuric acid phthalocyanine **pigment** manuf; copper phthalocyanine **pigment** manuf
IT 132-16-1P, Iron(II) phthalocyanine 147-14-8P, Copper phthalocyanine 1661-03-6P, Magnesium phthalocyanine 3317-67-7P, Cobalt phthalocyanine 7440-55-3DP, Gallium, complexes with phthalocyanines 7440-74-6DP, Indium, complexes with phthalocyanines 14055-02-8P 14325-24-7P, Manganese phthalocyanine **21328-73-4P**, Calcium phthalocyanine
(manufacture of, for **pigments**, in presence of cyanuric acid derivs., with improved yield and workability)

L49 ANSWER 28 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1987:80947 HCAPLUS
DOCUMENT NUMBER: 106:80947
TITLE: Intramitochondrial **dyes** allow selective in vitro photolysis of carcinoma cells
AUTHOR(S): Oseroff, A. R.; Ohuoha, D.; Ara, G.; McAuliffe, D.; Foley, J.; Cincotta, L.
CORPORATE SOURCE: Dep. Dermatol., Harvard Med. Sch., Boston, MA, 02114, USA
SOURCE: Proceedings of the National Academy of Sciences of the United States of America (1986), 83(24), 9729-33
CODEN: PNASA6; ISSN: 0027-8424
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



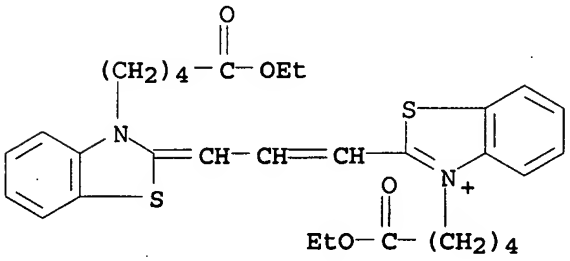
I

AB Carcinoma cell mitochondria preferentially accumulate and retain certain cationic **dyes** to a much greater extent than do most normal cells. Thus, they can potentially serve as targets for highly selective photochemotherapy. Ten rhodamine and cyanine **dyes** were evaluated as carcinoma-specific mitochondrial photosensitizers in vitro. The most effective, N,N'-bis(2-ethyl-1,3-dioxolane)kryptocyanine (I) caused marked, light-dependent killing of human bladder, squamous, and colon carcinoma cell lines after 30-min incubations at 1-0.01 μM but was minimally toxic to human **keratinocytes** and to normal monkey kidney epithelial cells (CV-1). Carcinoma cell phototoxicity was proportional to the amount of **dye** incorporated by the different cell lines. Selective killing ratios were 70-1000 for 0.1 μM **dye** and light doses of 100-175 J/cm2 at 680-720 nm.

IT **106789-29-1**
(metabolism of, by mitochondria of normal and carcinoma cells of human, carcinoma phototherapy in relation to)

RN 106789-29-1 HCAPLUS

CN Benzothiazolium, 3-(5-ethoxy-5-oxopentyl)-2-[3-[3-(5-ethoxy-5-oxopentyl)-2(3H)-benzothiazolylidene]-1-propenyl]-, bromide (9CI) (CA INDEX NAME)



● Br^-

CC 8-9 (Radiation Biochemistry)

ST carcinoma mitochondria cationic **dye** phototherapy

IT Mitochondria
(cationic **dyes** metabolism by, of normal and carcinoma cells of human, carcinoma phototherapy in relation to)

IT Carcinoma
(phototherapy of, cationic **dye** metabolism by mitochondria in relation to)

IT Biological transport
(absorption, of cationic **dyes**, by mitochondria of

normal and carcinoma cells of human, carcinoma phototherapy in relation to)

IT **Dyes**, cyanine
(cationic, metabolism of, by mitochondria of normal and carcinoma cells of human, carcinoma phototherapy in relation to)

IT **Dyes**
(cationic, rhodamine, mitochondria of normal and carcinoma cells of human metabolism of, carcinoma phototherapy in relation to)

IT Intestine, neoplasm
(colon, cationic **dyes** metabolism by mitochondria of, phototherapy in relation to)

IT Kidney, metabolism
(epithelium, cationic **dyes** metabolism by mitochondria of, of human, cancer phototherapy in relation to)

IT Skin, metabolism
(**keratinocyte**, cationic **dyes** metabolism by mitochondria of, of human, cancer phototherapy in relation to)

IT Bladder
(neoplasm, cationic **dyes** metabolism by mitochondria of, phototherapy in relation to)

IT Carcinoma
(squamous cell, cationic **dye** metabolism by mitochondria of, phototherapy in relation to)

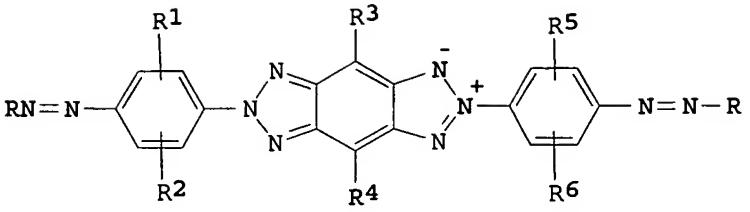
IT 989-38-8 14806-50-9, 3,3'-Diethyloxadicarbocyanine iodide
15185-43-0, 3,3'-Diethyloxatricarbocyanine iodide 36536-22-8
62669-70-9 **106789-29-1** 106789-30-4 106796-35-4
106807-07-2 106807-08-3
(metabolism of, by mitochondria of normal and carcinoma cells of human, carcinoma phototherapy in relation to)

L49 ANSWER 29 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1984:77329 HCAPLUS
DOCUMENT NUMBER: 100:77329
TITLE: Electrophotographic photosensitive materials
PATENT ASSIGNEE(S): Copyer Co., Ltd., Japan; Canon K. K.
SOURCE: Jpn. Kokai Tokkyo Koho, 8 pp.
CODEN: JKXXAF
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 57169757	A2	19821019	JP 1981-54380 <--	19810413
JP 01053458	B4	19891114		

PRIORITY APPLN. INFO.: JP 1981-54380 19810413 <--

GI



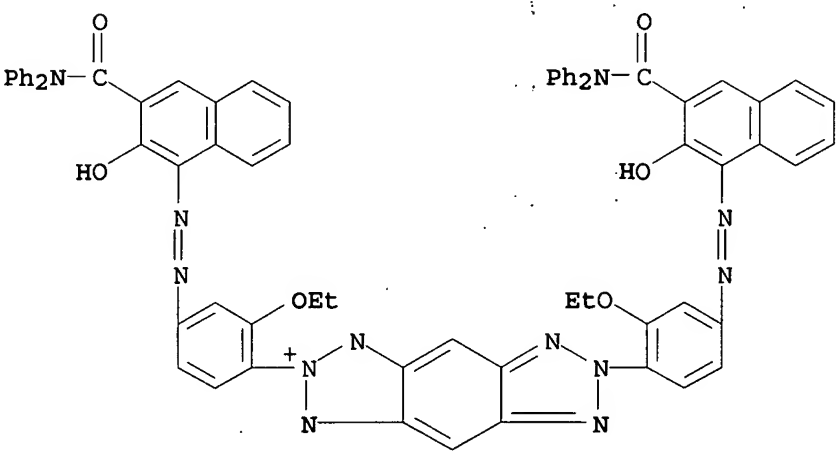
I

AB Electrophotog. photosensitive materials contain a bisazo **dye** of the general formula I (R = aromatic coupler moiety; R1, R2, R3, R4, R5, R6 = H, halo, alkyl, alkoxy, OH). Thus, an Al support coated with a poly(vinyl alc.) subbing layer was coated with a composition containing I (R = 3-phenylcarbomoyl-2-hydroxy-1-naphthyl; R1 = R2 = R3 = R4 = R5 = R6 = H) and a polyester, and coated with a composition containing p-diethylaminobenzaldehydo-N,N-diphenylhydrazone and poly(Me methacrylate) to give a composite electrophotog. plate having good sensitivity and good electrostatic characteristics.

IT **88514-92-5**
(electrophotog. charge-generating **pigment**)

RN 88514-92-5 HCAPLUS

CN Benzo[1,2-d:4,5-d']bistriazolium, 2,6-bis[4-[[3-[(diphenylamino)carbonyl]-2-hydroxy-1-naphthalenyl]azo]-2-ethoxyphenyl]-1,6-dihydro-, inner salt (9CI) (CA INDEX NAME)



ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

IC G03G005-06

CC 74-3 (Radiation Chemistry, Photochemistry, and Photographic and Other Reprographic Processes)

ST composite electrophotog plate; charge generating bisazo **pigment** electrophotog

IT Photography, electro-, photoconductors
Photography, electro-, plates
(composite, charge-generating bisazo **pigments** for)

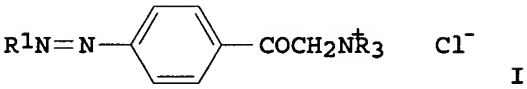
IT 88514-89-0 88514-90-3 88514-91-4 **88514-92-5**
88514-93-6 88514-94-7 88514-95-8 88514-96-9 88514-97-0
88514-98-1 88526-90-3 88526-91-4 88642-09-5
(electrophotog. charge-generating **pigment**)

L49 ANSWER 30 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1981:570990 HCAPLUS
DOCUMENT NUMBER: 95:170990
TITLE: Yellow to scarlet azo cationic **dyes** for application to polyacrylonitrile fibers
INVENTOR(S): Khanna, Ish Kumar; Ayyangar, Nagaraj Ramanuj
PATENT ASSIGNEE(S): Council of Scientific and Industrial Research, India
SOURCE: Indian, 10 pp.
CODEN: INXXAP
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
IN 148462	A	19810228	IN 1978-DE558 <--	19780729

PRIORITY APPLN. INFO.: IN 1978-DE558 A 19780729 <--

GI



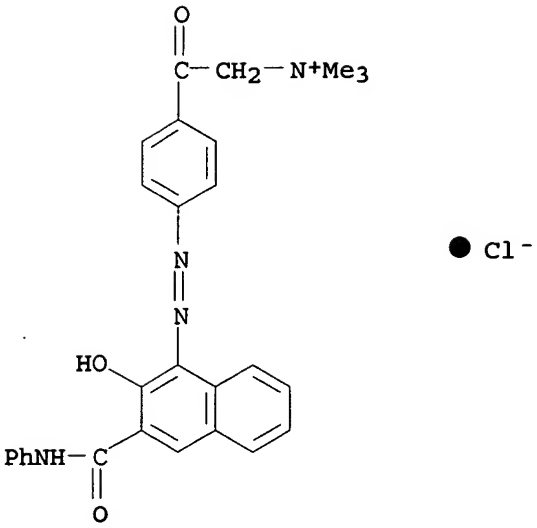
I

AB Title **dyes** of general structure I are prepared, where N+R3 = N+Et3, or pyridinio and R1 is a substituted benzene, naphthalene, acetoacetate, acetoacetamide, pyrazolone, hydroxypyridinol, homophthalimide, or indole residue. Thus, diazotization of p-H2NC6H4COCH2N+Me3Cl- [24293-73-0] and coupling with m-MeC6H4NH2 [108-44-1] gave I [R = Me, R1 = 2,4-Me(H2N)C6H3] [36904-42-4], a brilliant orange **dye** for acrylic fibers. Nine other I were similarly prepared

IT **79499-13-1P**
(manufacture of, as **dye** for acrylic fibers)

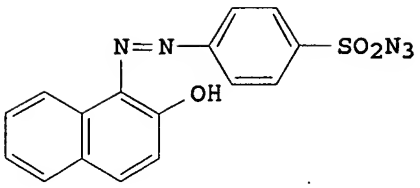
RN 79499-13-1 HCAPLUS

CN Benzeneethanaminium, 4-[[2-hydroxy-3-[(phenylamino)carbonyl]-1-naphthalenyl]azo]-N,N,N-trimethyl-β-oxo-, chloride (9CI) (CA INDEX NAME)



IC C09B029-00
CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
ST cationic azo **dye**; phenacylammonium azo **dye**; acrylic fiber azo **dye**
IT Acrylic fibers, uses and miscellaneous
(**dyes** for, [(arylazo)phenacyl]trimethylammonium chlorides as)
IT **Dyes**, azo
(cationic, [(arylazo)phenacyl]trimethylammonium chlorides, for acrylic fibers)
IT 27678-39-3P 36904-42-4P 61901-59-5P 71198-81-7P
79499-13-1P 79499-14-2P 79499-15-3P 79499-16-4P
79499-17-5P 79519-78-1P
(manufacture of, as **dye** for acrylic fibers)

L49 ANSWER 31 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1979:139045 HCAPLUS
DOCUMENT NUMBER: 90:139045
TITLE: Azides. Part I. Reactive **dyes** containing the azido group for synthetic-polymer fibers
AUTHOR(S): Ayyangar, N. R.; Badami, N. V.; Tilak, B. D.
CORPORATE SOURCE: Natl. Chem. Lab., Poona, India
SOURCE: Journal of the Society of Dyers and Colourists (1979), 95(1), 13-19
CODEN: JSDCAA; ISSN: 0037-9859
DOCUMENT TYPE: Journal
LANGUAGE: English
GI



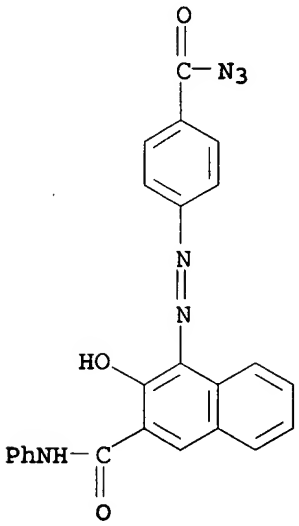
I

AB Azo and anthraquinone **dyes** containing sulfonyl azide, carbonyl azide, azidoaryl, and azidoacetamido groups, e. g. I [2920-03-8], were prepared which react with synthetic fibers; their **dyeing** and fastness properties on acetate, polyamide, and polyester fibers are described.

IT **69702-78-9**
(reactive **dyes**, for synthetic fibers)

RN 69702-78-9 HCAPLUS

CN Benzoyl azide, 4-[[2-hydroxy-3-[(phenylamino)carbonyl]-1-naphthalenyl]azo]- (9CI) (CA INDEX NAME)



CC 40-5 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST fiber reactive **dye** azide; anthraquinone **dye** azido reactive; azo **dye** azido reactive; acetate fiber **dye** reactive; polyamide fiber **dye** reactive; polyester fiber **dye** reactive

IT **Dyes**, reactive
(azide group-containing, for synthetic fibers)

IT Acetate fibers, uses and miscellaneous
Polyamide fibers, uses and miscellaneous
Polyester fibers, uses and miscellaneous
(**dyes** for, azide group-containing reactive)

IT 42897-85-8 69702-69-8
(**dye**, for acetate, polyamide and polyester fibers, preparation of)

IT 2920-03-8 34563-92-3 35472-89-0 35954-42-8 41657-72-1
69631-39-6 69702-68-7 69702-70-1 69702-71-2 69702-72-3

69702-73-4 69702-74-5 69702-75-6 69702-76-7 69702-77-8
69702-78-9 69702-79-0 69702-80-3 69702-81-4
69702-82-5 69702-83-6 69702-84-7 69702-85-8 69702-86-9
69702-87-0 69702-90-5 69702-91-6 69702-92-7 69702-93-8
69702-94-9 69702-95-0 69726-24-5 69797-13-3
(reactive **dyes**, for synthetic fibers)

L49 ANSWER 32 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1978:512303 HCAPLUS
DOCUMENT NUMBER: 89:112303
TITLE: Water-soluble quaternary ammonium **dyes**
INVENTOR(S): Jefferies, Patrick J.; Crounse, Nathan N.
PATENT ASSIGNEE(S): Sterling Drug Inc., USA
SOURCE: U.S., 77 pp. Continuation-in-part of U.S. 3,839,426.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 9
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3996282	A	19761207	US 1974-486180	1974 0705
US 3709903	A	19730109	US 1970-51676 <--	1970 0701
US 3839426	A	19741001	US 1970-51690 <--	1970 0701
GB 1333837	A	19731017	GB 1971-29451 <--	1971 0622
CA 940528	A1	19740122	CA 1971-116474 <--	1971 0623
US 3784599	A	19740108	US 1971-201153 <--	1971 1122
US 3935182	A	19760127	US 1973-332511 <--	1973 0214
CA 940121	A2	19740115	CA 1973-163853 <--	1973 0216
US 4103092	A	19780725	US 1975-595864 <--	1975 0714

US 4065500	A	19771227	US 1976-672428	
				1976
				0331
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US 4146558	A	19790327	US 1977-839975	
				1977
				1006
			<--	
US 4206144	A	19800603	US 1978-963031	
				1978
				1122
			<--	
PRIORITY APPLN. INFO.:			US 1966-551868	A2
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			US 1968-777884	A2
				1968
				1121
			<--	
			US 1970-51676	A2
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				0701
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			US 1970-51690	A2
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				0701
			<--	
			US 1971-201153	A2
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			US 1973-332511	A2
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			US 1966-531868	A2
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				0705
			<--	
			US 1975-595864	A2
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				0714
			<--	
			US 1976-672428	A2
				1976
				0331
			<--	

US 1976-672482 A2
1976
0331
<--
US 1977-839975 A2
1977
1006
<--

GI

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

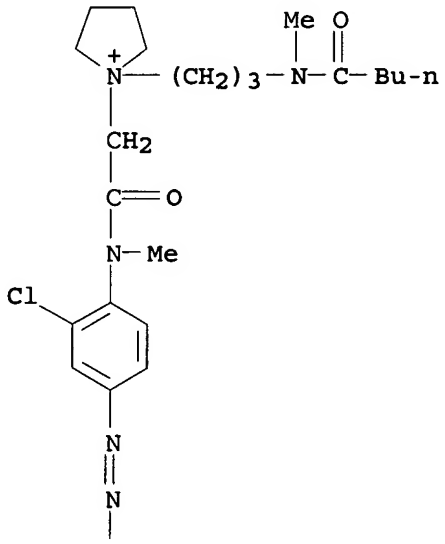
AB Approx. 100 cationic water-soluble azo and disazo **dyes** for paper were prepared which had good bleachability and good bleed-fastness properties. The **dyes** were prepared by conventional azo coupling techniques and the preparation of intermediates was extensively described. ' Representative of the **dyes** prepared are: I (R = R1) [38901-94-9], II [40948-99-0], and III [66755-16-6].

IT **66754-74-3P**
(preparation and spectrum of)

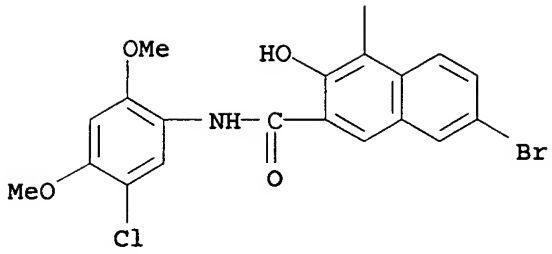
RN 66754-74-3 HCAPLUS

CN Pyrrolidinium, 1-[2-[[4-[[6-bromo-3-[[(5-chloro-2,4-dimethoxyphenyl)amino]carbonyl]-2-hydroxy-1-naphthalenyl]azo]-2-chlorophenyl]methylamino]-2-oxoethyl]-1-[3-[methyl(1-oxopentyl)amino]propyl]-, chloride (9CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● Cl⁻

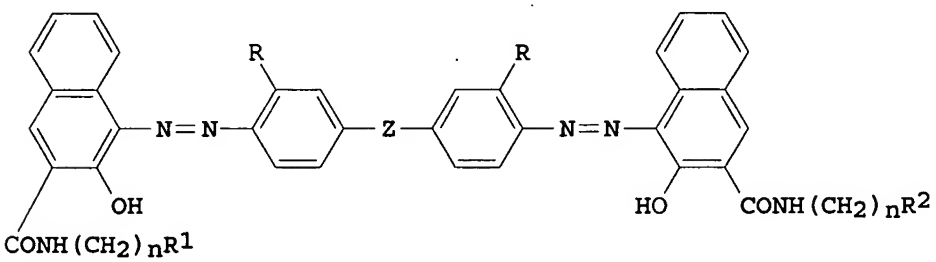
IC C07C087-30
INCL 260567600M
CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
Section cross-reference(s): 43
ST azo cationic paper **dye**; disazo cationic paper **dye**; ammonium azo paper **dye**
IT Paper
(**dyes** for, azo, containing quaternary ammonium groups, manufacture of)
IT **Dyes**, azo
(quaternary ammonium group-containing, for paper, preparation of)
IT 119-93-7 2425-95-8
(coupling of diazotized, in paper **dye** manufacture)
IT 38901-94-9 38901-95-0 40948-42-3 40948-80-9 40948-81-0
40948-82-1 40948-84-3 40948-91-2 40948-92-3
(**dye**, for paper, preparation of)
IT 40948-99-0P 40949-12-0P 66755-04-2P 66755-05-3P
66755-06-4P 66755-07-5P 66755-14-4P 66755-15-5P
(**dye**, preparation of)
IT 38901-93-8P 40948-29-6P
(preparation and coupling of diazotized in paper **dye** manufacture)
IT 40948-32-1P
(preparation and coupling use in azo **dye** manufacture)
IT 4433-79-8P 38901-96-1P 40948-44-5P 40948-45-6P 40948-47-8P
40948-54-7P 40948-55-8P 40948-56-9P 40948-58-1P
40948-60-5P 40948-62-7P 40948-63-8P 40948-64-9P
40948-66-1P 40948-67-2P 40948-68-3P 40948-70-7P
40948-72-9P 40948-73-0P 40948-74-1P 40948-75-2P
40948-77-4P 40948-78-5P 40948-79-6P 40948-86-5P
40948-87-6P 40948-89-8P 40948-90-1P 40948-94-5P
40948-95-6P 40948-96-7P 40948-97-8P 40949-01-7P
40949-02-8P 40949-03-9P 40949-05-1P 40949-06-2P
40949-07-3P 40949-08-4P 40949-09-5P 40949-11-9P
40988-54-3P 40988-55-4P 51023-93-9P 51332-33-3P
51332-34-4P 51332-35-5P 51332-36-6P 51332-37-7P
51332-38-8P 51332-39-9P 51332-40-2P 51383-97-2P
58795-67-8P 58795-68-9P 58795-69-0P 58836-03-6P
58836-04-7P 66754-69-6P 66754-70-9P 66754-72-1P
66754-73-2P **66754-74-3P** 66754-75-4P 66754-76-5P
66754-77-6P 66754-78-7P 66754-79-8P 66754-80-1P
66754-81-2P 66754-82-3P 66754-83-4P 66754-84-5P

66754-85-6P 66754-86-7P 66754-87-8P 66754-88-9P
66754-89-0P 66754-90-3P 66754-91-4P 66754-92-5P
66754-93-6P 66754-94-7P 66754-95-8P 66754-96-9P
66754-97-0P 66754-98-1P 66754-99-2P 66755-00-8P
66755-01-9P 66755-02-0P 66755-03-1P 66755-12-2P
66755-13-3P 66755-16-6P 66776-98-5P 66776-99-6P
(preparation and spectrum of)

L49 ANSWER 33 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1977:586061 HCAPLUS
DOCUMENT NUMBER: 87:186061
TITLE: Basic disazo **dyes** having two 2-hydroxy-3-substituted carbamoylnaphthyl-1-azophenyl groups for **dyeing** paper
INVENTOR(S): Moser, Helmut; Von Tobel, Hans
PATENT ASSIGNEE(S): Sandoz A.-G., Switz.
SOURCE: U.S., 21 pp.
CODEN: USXXAM
DOCUMENT TYPE: **Patent**
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 4046502	A	19770906	US 1975-641485 <--	1975 1217
PRIORITY APPLN. INFO.:			US 1970-95336 A1 <--	1970 1204
			US 1973-418451 A3 <--	1973 1123

GI



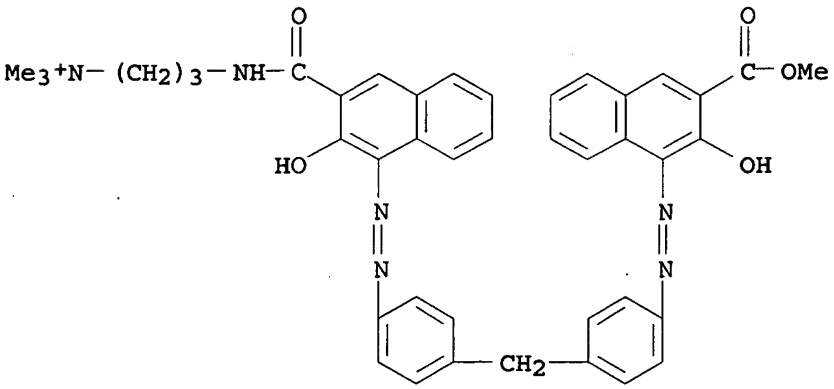
I

AB Eighteen disazo **dyes** (I, R = H, MeO; R1, R2 = NMe2, N+Me3 X-; Z = direct bond, NH, NHCONH, CH2, CH:CH; X = Cl, MeSO4; n = 2, 3) are prepared and used to **dye** paper fast blue to violet shades. Thus, dianisidine [119-90-4] is tetrazotized and coupled with 2,3-HOC10H6CONH(CH2)3NMe2 [19795-11-0] to give I(R = MeO, R1 = R2 = NMe2, Z = direct bond, n = 3) [34072-24-7].
IT **64617-84-1**

(reaction of, with dimethylhydrazine)
RN 64617-84-1 HCAPLUS
CN 1-Propanaminium, 3-[[[3-hydroxy-4-[[4-[[4-[[2-hydroxy-3-(methoxycarbonyl)-1-naphthalenyl]azo]phenyl]methyl]phenyl]azo]-2-naphthalenyl]carbonyl]amino]-N,N,N-trimethyl-, methyl sulfate (salt) (9CI) (CA INDEX NAME)

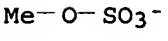
CM 1

CRN 64617-83-0
CMF C42 H41 N6 O5



CM 2

CRN 21228-90-0
CMF C H3 O4 S



IC D21H001-46
INCL 008007000
CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
ST disazo hydroxynaphthamide paper **dye**; basic disazo paper **dye**; azo basic paper **dye**
IT **Dyes**, azo
([(aminoalkyl)carbamoyl]naphthol disazo derivs., for paper)
IT Paper
(**dyes** for, [(aminoalkyl)carbamoyl]naphtho disazo derivs. as)
IT 57-14-7 124-40-3, uses and miscellaneous
(in manufacture of disazo basic paper **dyes**)
IT 101-77-9 621-96-5 4550-72-5 19795-11-0
(in manufacture of disazo paper **dyes**)
IT 64617-47-6 64617-77-2 **64617-84-1**
(reaction of, with dimethylhydrazine)

L49 ANSWER 34 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:607567 HCAPLUS
DOCUMENT NUMBER: 83:207567
TITLE: Temporarily solubilized disperse **dyes**

INVENTOR(S): Koller, Stefan; Aeschlimann, Peter; Karlen, Urs; Liechti, Hans W.
PATENT ASSIGNEE(S): Ciba-Geigy A.-G., Switz.
SOURCE: Ger. Offen., 95 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2509596	A1	19750911	DE 1975-2509596 <--	1975 0305
FR 2384829	A1	19781020	FR 1975-6714 <--	1975 0304
BE 826352	A1	19750908	BE 1975-154054 <--	1975 0306
NL 7502689	A	19750909	NL 1975-2689 <--	1975 0306
ZA 7501381	A	19760225	ZA 1975-1381 <--	1975 0306
AU 7578859	A1	19760909	AU 1975-78859 <--	1975 0306
ES 435339	A1	19770516	ES 1975-435339 <--	1975 0306
JP 50122523	A2	19750926	JP 1975-27238 <--	1975 0307
BR 7501366	A	19751209	BR 1975-1366 <--	1975 0307

PRIORITY APPLN. INFO.: CH 1974-3211 A 1974 0307 <--

GI For diagram(s), see printed CA Issue.

AB Azo and anthraquinone disperse **dyes** were made temporarily water soluble by incorporating a group of structure RCH2CO2, where R is a diammonium or amino ammonium residue. For example, reaction of I(R = Cl) [51083-73-9] with 1,4-dimethylpiperazine [106-58-1] in Me2CO at 50° gave **dye** I (R = 1,4-dimethyl-1-piperazinio (chloride))

[57277-12-0], which has good solubility in cold water. Application of this **dye** to polyester for 1 hr at 130°/pH 4-7 by the exhaust method gave a fast, level red **dyeing**. Four other **dyes** were similarly prepared

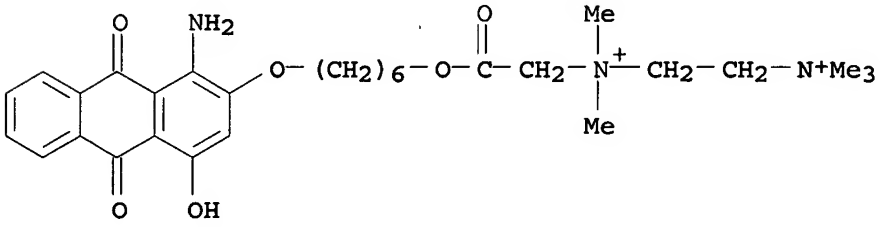
IT **57323-56-5**
(**dye**, for polyester fibers, preparation of)

RN 57323-56-5 HCAPLUS

CN 1,2-Ethanediaminium, N-[2-[[6-[(1-amino-9,10-dihydro-4-hydroxy-9,10-dioxo-2-anthracenyl)oxy]hexyl]oxy]-2-oxoethyl]-N,N,N',N',N'-pentamethyl-, chloride methyl sulfate (salt) (9CI) (CA INDEX NAME)

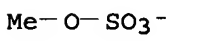
CM 1

CRN 57323-55-4
CMF C29 H41 N3 O6



CM 2

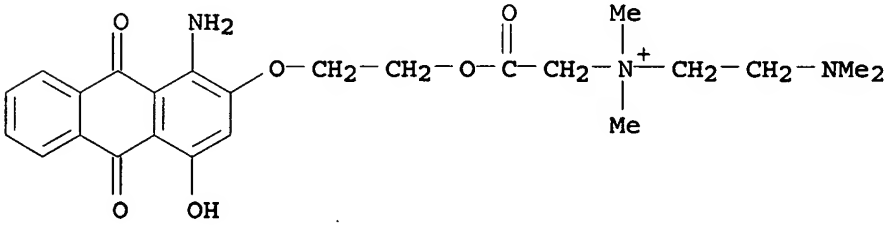
CRN 21228-90-0
CMF C H3 O4 S



IT **57277-11-9**
(reaction with dimethyl sulfate)

RN 57277-11-9 HCAPLUS

CN Ethanaminium, 2-[2-[(1-amino-9,10-dihydro-4-hydroxy-9,10-dioxo-2-anthracenyl)oxy]ethoxy]-N-[2-(dimethylamino)ethyl]-N,N-dimethyl-2-oxo-, chloride (9CI) (CA INDEX NAME)



IC C09B
CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
ST disperse **dye** temporarily solubilized; azo **dye** temporarily solubilized; anthraquinone **dye** temporarily solubilized; ammonioacetoxy solubilizing group **dye**
IT **Dyes**, anthraquinone
Dyes, azo
(disperse, temporarily solubilized, for polyester fibers)
IT Polyester fibers
(**dyes** for, disperse, temporarily solubilized)
IT 57277-05-1 57277-08-4 57277-10-8 57277-12-0
57323-56-5
(**dye**, for polyester fibers, preparation of)
IT 79-04-9
(esterification by, of hydroxyalkyl azo **dyes**)
IT 110-18-9 110-95-2
(quaternization of, by chloroacetoxy group-containing azo **dye**)
IT **57277-11-9**
(reaction with dimethyl sulfate)

L49 ANSWER 35 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:549106 HCAPLUS
DOCUMENT NUMBER: 83:149106
TITLE: Removal of uncomplexed copper from copper phthalocyanine
INVENTOR(S): Plankenhorn, Erwin
PATENT ASSIGNEE(S): BASF A.-G., Fed. Rep. Ger.
SOURCE: Ger. Offen., 7 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

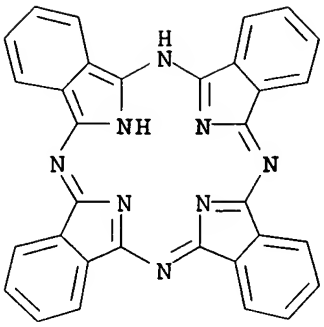
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2401088	A1	19750724	DE 1974-2401088	1974 0110

<--

PRIORITY APPLN. INFO.: DE 1974-2401088 A 1974 0110

<--

AB Noncomplexed ionic Cu was removed from crude copper phthalocyanine (I) [147-14-8] by heating I containing 155-350 ppm Cu in aqueous mineral acid with calcium phthalocyanine [**21328-73-4**], which complexes the Cu ion, filtering, and washing to neutrality giving final Cu contents of 20-37 ppm.
IT **21328-73-4**
(copper phthalocyanine treatment by, for noncomplexed copper removal)
RN 21328-73-4 HCAPLUS
CN 29H,31H-Phthalocyanine, calcium salt (1:1) (9CI) (CA INDEX NAME)



● Ca

IC C09B
CC 40-8 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
ST ionic copper removal phthalocyanine; **pigment** copper phthalocyanine purifn
IT **21328-73-4**
(copper phthalocyanine treatment by, for noncomplexed copper removal)

L49 ANSWER 36 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1975:45037 HCAPLUS
DOCUMENT NUMBER: 82:45037
TITLE: Cationic azo **dyes**
INVENTOR(S): Moritz, Karl L.; Schuendehuette, Karl H.
PATENT ASSIGNEE(S): Bayer A.-G.
SOURCE: Ger. Offen., 33 pp.
CODEN: GWXXBX
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 2315637	A1	19741003	DE 1973-2315637 <--	1973 0329
IT 1010832	A	19770120	IT 1974-42552 <--	1974 0326
BE 812883	A1	19740927	BE 1974-142489 <--	1974 0327
JP 49129721	A2	19741212	JP 1974-33629 <--	1974 0327
GB 1460366	A	19770106	GB 1974-13781	

1974
0328
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FR 2223431 A1 19741025 FR 1974-11045
1974
0329
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PRIORITY APPLN. INFO.: DE 1973-2315637 A
1973
0329
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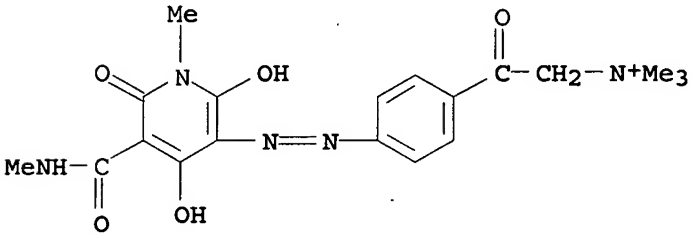
GI For diagram(s), see printed CA Issue.

AB Fast cationic monoazo **dyes** for acrylic and acid-modified polyester fibers were prepared by coupling 2,4,6-triamino-, 4,6-diamino-2-oxo-, or 2,4,6-trihydroxypyridine derivs. with diazotized anilines containing a quaternary ammonium or hydrazinium group, or by first coupling with diazotized chloroalkyl-substituted anilines followed by quaternization. Thus, diazotization of 3-H2NC6H4OCH2CH2N+Me2NH2 Cl- [53816-20-9] and coupling with Et 2,4,6-trihydroxynicotinate [53815-27-3] gave cationic **dye** I [53816-18-5], yellow on acrylic fibers. Similarly, diazotization of 3,4-O2N(H2N)C6H3N+Me3 Cl- [20280-54-0] and coupling with 1-methyl-2-(benzylimino)-3-cyano-4-(methylamino)-6-amino-1,2-dihydropyridine [39581-19-6] gave cationic **dye** (II) [53816-19-6], fast reddish brown on acrylic fibers. Eight other **dyes** were prepared

IT **53816-04-9P**
(preparation of)

RN 53816-04-9 HCAPLUS

CN Benzeneethanaminium, 4-[[1,6-dihydro-2,4-dihydroxy-1-methyl-5-[(methylamino)carbonyl]-6-oxo-3-pyridinyl]azo]-N,N,N-trimethyl-β-oxo-, chloride (9CI) (CA INDEX NAME)



● Cl⁻

IC C09B

CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)

ST azo cationic **dye**; pyridinediol azo **dye**; pyridinetriamine azo **dye**; acrylic fiber **dye**; polyester fiber **dye**

IT **Dyes**, azo
(cationic (phenylazo)pyridine derivs., for acrylic and polyester fibers)

IT Polyester fibers
(**dyes** for acid-modified, cationic (phenylazo)pyridine derivs. as)

IT Acrylic fibers
(**dyes** for, cationic (phenylazo)pyridine derivs. as)
IT 53816-03-8P **53816-04-9P** 53816-05-0P 53816-06-1P
53816-07-2P 53816-18-5P 53816-19-6P 53831-79-1P
53896-85-8P 53896-86-9P
(preparation of)

L49 ANSWER 37 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1974:465195 HCAPLUS
DOCUMENT NUMBER: 81:65195
TITLE: Fiber-reactive cationic **dyes**
INVENTOR(S): Kenmochi, Hirohito; Yamamoto, Masakazu; Ikeda, Takuo; Korenaga, Yohji; Takeda, Yoshio; Ohkawa, Taksuaki
PATENT ASSIGNEE(S): Sumitomo Chemical Co., Ltd.
SOURCE: Jpn. Tokkyo Koho, 10 pp.
CODEN: JAXXAD
DOCUMENT TYPE: **Patent**
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 48037967	B4	19731114	JP 1970-50664	19700610

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PRIORITY APPLN. INFO.: JP 1970-50664 19700610

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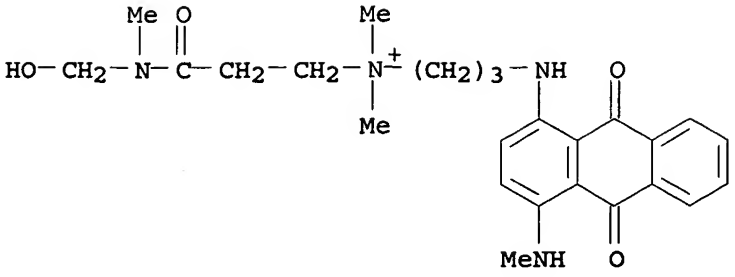
AB Cationic **dyes** containing amide groups linked to quaternnary N by a methylene or ethylene bridge are treated with formaldehyde [50-00-0] in a lower alc. to give fiber-reactive **dyes.** For example, azo **dye** I (R = H) [52028-88-3] was heated 3 hr at 60-5.deg. and pH 7.5 (Na2CO3) with HCHO in MeOH, refluxed 2 hr with oxalic acid, and salted out with NaCl to give I (R = CH2OMe) [52028-89-4], which gives fast blue shades on cellulosic, silk, wool, polyamide, vinal, and acrylic fibers. Similarly were prepared 5 addnl. azo **dyes**, anthraquinone **dye** II [**52028-90-7**], and benzindole **dye** III [52028-76-9].

IT **52028-90-7P**
(preparation of)
RN 52028-90-7 HCAPLUS
CN 1-Propanaminium, 1-[3-[[9,10-dihydro-4-(methylamino)-9,10-dioxo-1-anthracenyl]amino]propyl]-3-[(hydroxymethyl)methylamino]-N,N-dimethyl-3-oxo-, chloride (9CI) (CA INDEX NAME)



● Cl^-

IC C09B
CC 40-4 (Dyes, Fluorescent Whitening Agents, and Photosensitizers)
ST anthraquinone **dye** cationic reactive; benzothiazolium azo **dye** reactive; thiazolium azo **dye** reactive; indole azo **dye** reactive; benzindole cationic **dye** reactive; triazolium azo **dye** reactive; azo cationic reactive **dye**
IT **Dyes**, reactive
(hydroxymethylated amide derivs. of cationic **dyes**)
IT Hydroxymethylation
(of amide derivs. of cationic **dyes**)
IT 52028-75-8P 52028-76-9P 52028-79-2P 52028-81-6P 52028-82-7P 52028-83-8P 52028-86-1P 52028-89-4P **52028-90-7P**
(preparation of)
IT 50-00-0, reactions
(with amide group-containing cationic **dyes**)

L49 ANSWER 38 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1967:96212 HCAPLUS
DOCUMENT NUMBER: 66:96212
TITLE: Water-soluble quaternary azo **dyes**
INVENTOR(S): Braun, Willy; Weissauer, Hermann; Waechter, Rudolf
PATENT ASSIGNEE(S): Badische Anilin- & Soda-Fabrik AG
SOURCE: Ger., 3 pp.
CODEN: GWXXAW
DOCUMENT TYPE: **Patent**
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1230943		19661222	DE 1958-B49026	1958 0523

<--

GI For diagram(s), see printed CA Issue.
AB A mixture of 11.3 parts of the azo **dye** 3-AcC6H4NH2 (I) → 2,3-HOC10H6CONHC6H4Ac-3, 5 parts pyridine-HCl, 2.25 parts paraformaldehyde, and 150 parts concentrated AcOH was boiled until the

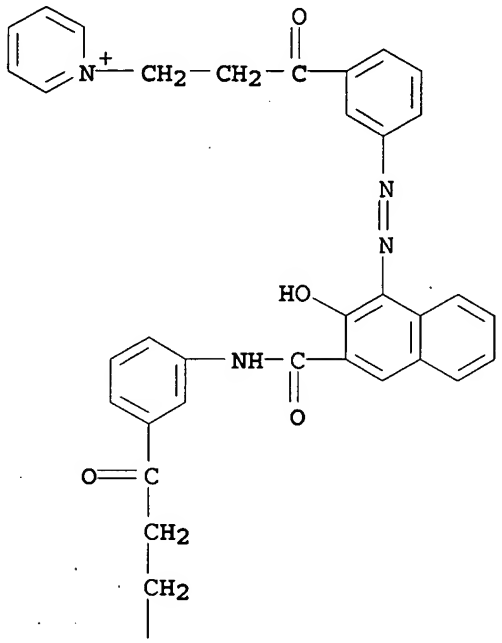
reaction product was H2O-soluble, the solvent distilled in vacuo, and the residue treated with absolute EtOH to give II, red crystals, which **dyed** cellulose acetate, polyamides, wool, and cotton red shades. Similarly, the azo **dye** I → 2-C10H7OH gave a brown-orange **dye.**

IT **15503-40-9P**
(preparation of)

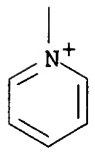
RN 15503-40-9 HCAPLUS

CN Pyridinium, 1-[2-[m-[3-hydroxy-4-[[m-(3-pyridiniopropionyl)phenyl]azo]-2-naphthamido]benzoyl]ethyl]-, dichloride (8CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



●2 Cl⁻

IC C09B

CC 40 (Dyes, Fluorescent Brightening Agents, and Photosensitizers)

ST QUATERNARY AZO **DYES**; COTTON **DYES**; AZO **DYES** QUATERNARY; PYRIDINIUM **DYES**; CELLULOSE

ACETATE **DYES**; POLYAMIDE **DYES**; WOOL **DYES**; CATIONIC **DYES**
IT Fiber, acetate, uses and miscellaneous
(**dyes** for, heterocyclic quaternized derivs. of azo compds. as)
IT Nylon, uses and miscellaneous
(**dyes** for, quaternized heterocyclic azo compds. as)
IT **Dyes**, azo
(quaternized heterocyclic derivs., acetate, cotton, nylon and wool)
IT **15503-40-9P**
(preparation of)

L49 ANSWER 39 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:439053 HCAPLUS
DOCUMENT NUMBER: 65:39053
ORIGINAL REFERENCE NO.: 65:7326h,7327a-c
TITLE: Cationic anthraquinone **dyes**
INVENTOR(S): Iizuka, Masao; Arakawa, Kyokuji; Yokobori, Masaji
PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd.
SOURCE: 9 pp.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 40018639	B4	19650821	JP	1963 0722 <--

PRIORITY APPLN. INFO.: JP 1963 0722 <--

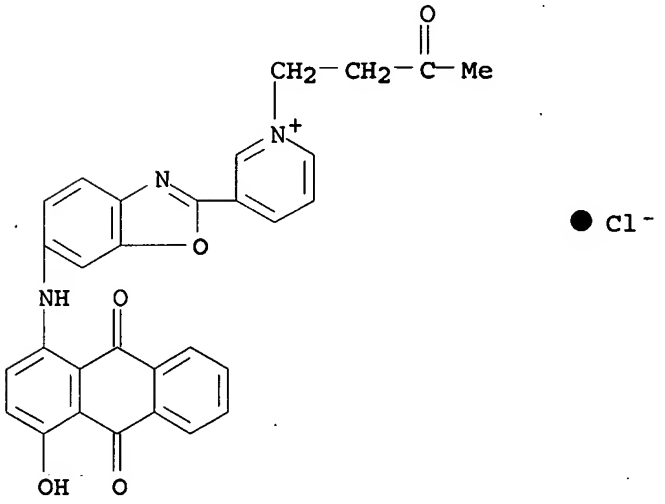
GI For diagram(s), see printed CA Issue.
AB Anthraquinones of the formula I, where A = II or III and Q is 3- (IV) or 4-pyridyl (V) are quaternized to give **dyes** for polyacrylontrile fibers (VI). Thus, a hot solution of I (X = MeNH, Y = Z = R = R1 = H, A = III, Q = IV) 4.46 in o-Cl2C6H4 150 parts was treated with 1.51 parts Me2SO4, stirred 2 hrs. at 115-20°, cooled, filtered, washed with C6H6-ligroine, and recrystd. from H2O to give 4.6 parts cationic **dye**, greenish blue on VI. Similarly other I (unless otherwise specified Z = R = R7 = H) were treated (X, Y, A, Q, quaternizing agent, and shade on VI given): MeNH, H, II, IV, CH2:CHCONH2 (VII) and HCl, greenish blue; OH, H, III, IV, p-MeC6H4SO3Et (VIII), reddish blue; OH, H, II, IV, CH2:CHCOMe and HCl, blue; NH2, H, III, V, Me2SO4, blue; NH2, H, III, IV, VII and p-MeC6H4SO3H, blue; NH2, Br, II, V, EtBr, blue; NH2, Br, III, V, Et2SO4, blue; MeNH, H, III, V, Me2SO4, greenish blue; cyclohexylamino, H, III, IV, VII and HCl, greenish blue; NH2, H, II, IV, VIII, blue; NH2, H, II, V, VII and HBr, blue; NH2, Br, III, IV, PhSO3Me, blue; NH2, Br, II, IV, Me2SO4, blue; H, H, III, IV, Me2SO4, violet (Z = NH2); OH, H, III, V, Et2SO4, reddish blue; OH, H, II, V, VII and HCl, reddish blue; OH, H, III (R1 = Cl), IV, Me2SO4, blue; OH, H, III (R1 = Me), IV, Me2SO4, blue; p-MeC6H4NH, H, III, IV, Me2SO4, green; H, H, III, IV, VII and HCl,

greenish blue (Z = R = NH2); HOCH2CH2NH, H, III, IV, VII and HBr, blue; H, H, III, IV, Me2SO4, red. Cf. preceding abstract

IT **13246-29-2**, Pyridinium, 3-[6-[(4-hydroxy-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-(3-oxobutyl)-, chloride (preparation of)

RN 13246-29-2 HCAPLUS

CN Pyridinium, 3-[6-[(4-hydroxy-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-(3-oxobutyl)-, chloride (8CI) (CA INDEX NAME)



INCL 23F0

CC 46 (Dyes)

IT **Dyes**
(anthraquinone, [(1-anthraquinonylamino)-2-benzoxazolyl]pyridinium compds., poly(acrylonitrile))

IT Acrylonitrile polymers (including copolymers)
(**dyes** for fibers of, [(1-anthraquinonylamino)-2-benzoxazoylyl]pyridinium compds. as)

IT 13246-28-1, Pyridinium, 1-(2-carbamoylethyl)-3-[6-[[4-(methylamino)-1-anthraquinonyl]amino]-2-benzoxazolyl]-, chloride
13246-29-2, Pyridinium, 3-[6-[(4-hydroxy-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-(3-oxobutyl)-, chloride
13246-41-8, Pyridinium, 4-[6-[(4-amino-3-bromo-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-ethyl-, bromide
13492-90-5, Pyridinium, 4-[5-[(4-amino-3-bromo-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-ethyl-, ethyl sulfate
13531-58-3, Pyridinium, 3-[[m-[(4-amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-ethyl-, bromide
14440-03-0, Pyridinium, 1-methyl-3-[[m-[[4-(methylamino)-1-anthraquinonyl]amino]phenyl]carbamoyl]-, methyl sulfate
14440-04-1, Pyridinium, 1-methyl-3-[5-[[4-(methylamino)-1-anthraquinonyl]amino]-2-benzoxazolyl]-, methyl sulfate
14440-05-2, Pyridinium, 3-[5-[(4-amino-1-anthraquinonyl)amino]-2-benzoxazolyl]-1-(2-carbamoylethyl)-, p-toluenesulfonate
14651-44-6, Pyridinium, 1-ethyl-3-[5-[(4-hydroxy-1-anthraquinonyl)amino]-2-benzoxazolyl]-, p-toluenesulfonate
15066-35-0, Pyridinium, 1-ethyl-3-[[m-[(4-hydroxy-1-anthraquinonyl)amino]phenyl]carbamoyl]-, p-toluenesulfonate
(preparation of)

L49 ANSWER 40 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:439052 HCAPLUS
DOCUMENT NUMBER: 65:39052
ORIGINAL REFERENCE NO.: 65:7326f-h
TITLE: Cationic anthraquinone **dyes**
INVENTOR(S): Iizuka, Masao; Aarakawa, Kyokuji; Yokobori, Masaji
PATENT ASSIGNEE(S): Hodogaya Chemical Co., Ltd.
SOURCE: 10 pp.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 40018638	B4	19650821	JP	1963 0722 <--
PRIORITY APPLN. INFO.:			JP	1963 0722 <--

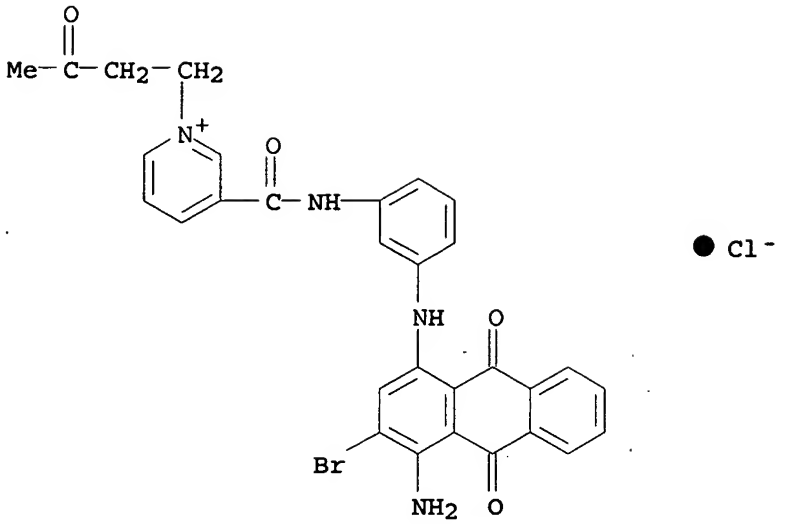
GI For diagram(s), see printed CA Issue.

AB Anthraquinones of the formula I, where A is m- (II) or p-phenylene (III) and Q is 3- (IV) or 4-pyridyl (V), are treated with quaternizing agents to give **dyes** for polyacrylonitrile fibers (VI). I are prepared by condensing 4-bromoanthaquinones or quinizarin with QCONHC6H4NH2 or by acylation of 4-(aminoanilino)anthraquinones with QCOCl. Thus, a mixture of I (X = NH2, Y = Z = H, A = III, Q = V) 4.34 and CH2:CHCONH2 (VII) 14.4 in AcOH 87 parts was heated to 90°, treated with 1.21 parts 36% aqueous HCl, stirred 1 hr. at 96-8°, and diluted with 800 parts H2O. Treatment with C and salting out yielded 4.6 parts cationic **dye**, blue in H2O and greenish blue on VI. Similarly other I (unless otherwise specified A = II, Q = IV) were quaternized (X, Y, Z, quaternizing agent, and shade on VI given): MeNH, H, H, Me2SO4, greenish blue; OH, H, H, p-MeC6H4SO3Et (VIII), reddish blue; NH2, Br, H, CH2:CHCOMe and HCl, blue; NH2, Br, H, EtBr, blue; MeNH, H, H, VII and HCl, greenish blue; NH2, H, H, Me2SO4, blue; OH, H, H, Me2SO4, reddish blue; NH2, Br, H, VII and HBr, blue; cyclohexylamino, H, H, VII and p-MeC6H4SO3H, greenish blue; HOCH2CH2NH, H, H, Me2SO4, greenish blue; H, H, NH2, VIII, violet; H, H, H, Me2SO4, red; AcNH, H, H, VII and HCl, reddish blue (A = III); NH2, CN, H, Me2SO4, blue. Cf. following abstract

IT **103622-10-2**, Pyridinium, 3-[[m-[(4-amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-(3-oxobutyl)-, chloride (preparation of)

RN 103622-10-2 HCAPLUS

CN 3-[[m-[(4-Amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-(3-oxobutyl)pyridinium chloride (7CI) (CA INDEX NAME)



INCL 23F0
CC 46 (Dyes)
IT **Dyes**
(anthraquinone, [(1-anthraquinonylamino)-2-benzoxazolyl]pyridinium compds., poly(acrylonitrile))
IT **Dyes**
(anthraquinone, [[(1-anthraquinonylamino)phenyl]carbamoyl]pyridium compds., poly(acrylonitrile))
IT Acrylonitrile polymers (including copolymers)
(**dyes** for fibers of, [[(1-anthraquinonylamino)phenyl]carbamoyl]pyridinium compds. as)
IT 13531-58-3, Pyridinium, 3-[[m-[(4-amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-ethyl-, bromide
13566-42-2, Pyridinium, 4-[[p-[(4-amino-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-(2-carbamoylethyl)-, chloride 14440-03-0, Pyridinium, 1-methyl-3-[[m-[[4-(methylamino)-1-anthraquinonyl]amino]phenyl]carbamoyl]-, methyl sulfate 15066-35-0, Pyridinium, 1-ethyl-3-[[m-[(4-hydroxy-1-anthraquinonyl)amino]phenyl]carbamoyl]-, p-toluenesulfonate
103622-10-2, Pyridinium, 3-[[m-[(4-amino-3-bromo-1-anthraquinonyl)amino]phenyl]carbamoyl]-1-(3-oxobutyl)-, chloride
(preparation of)

L49 ANSWER 41 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1966:11904 HCAPLUS
DOCUMENT NUMBER: 64:11904
ORIGINAL REFERENCE NO.: 64:2202h,2203a-b
TITLE: Cationic anthraquinone **dyes**
INVENTOR(S): Turetzky, Melvin N.
PATENT ASSIGNEE(S): General Aniline & Film Corp.
SOURCE: 7 pp.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

FR 1398575	19650507	FR	
		<--	
US 3274198	19660920	US 1963-287770	
			1963
			0614
		<--	
PRIORITY APPLN. INFO.:		US	
			1963
			0614
		<--	

GI For diagram(s), see printed CA Issue.

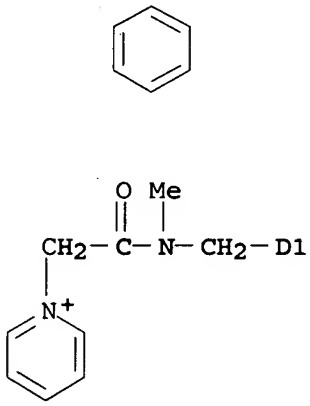
AB Anthraquinones of the general formula I, containing chloroacetylaminomethyl groups (Q = CH2NHOCCH2Cl) (II) are quaternized with pyridine (III) or Me3N to yield **dyes** for polyacrylonitrile (IV) fibers. II are prepared by treating I (Q = H) (V) with ClCH2CONH2 (VI) and paraformaldehyde (VII) in 100% H2SO4 containing P2O5. Thus, 10 g. V (X = OH, Y = Z = H, R = OMe) is added to a mixture of 20 g. VI, 11 g. VII and 9 g. P2O5 in 200 cc. 100% H2SO4, the mixture heated to 85-90°, drowned on ice, filtered and the cake washed neutral to give 13.4 g. II (X = OH, Y = Z = H, R = OMe) (VIII). A mixture of 2 g. VIII and 20 g. III is evaporated to dryness to give the pyridinium derivative, blue on IV. Similarly treated with VI and VII are the following V (X, Y, Z, R, quaternizing agent, shade on IV given): MeNH, H, H, Me, III, green-blue; NH2, Br, H, Me, III, reddish blue; p-MeC6H4NH, H, H, Me, III, green; NH2, H, PhO, OH, Me3N, reddish violet; NH2, H, H, Me, III, neutral blue. Also prepared and quaternized with III to give a grey-blue **dye** for IV is IX.

IT **105696-39-7**, 1-[[[Methyl[(4-p-toluidino-1-anthraquinonyl)amino]benzyl]carbamoyl]methyl]pyridinium chloride (preparation of)

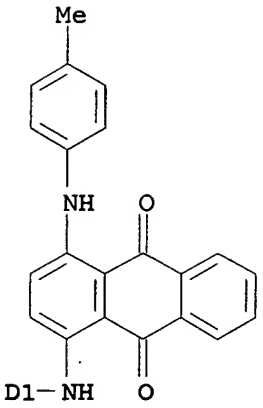
RN 105696-39-7 HCAPLUS

CN 1-[[[Methyl[(4-p-toluidino-1-anthraquinonyl)amino]benzyl]carbamoyl]methyl]pyridinium chloride (7CI) (CA INDEX NAME)

PAGE 1-A



PAGE 2-A



● Cl⁻

IC C09B
CC 46 (Dyes)
IT **Dyes**
(anthraquinone, pyridinium derivs., acrylonitrile polymers)
IT Acrylonitrile polymers (including copolymers)
(**dyes** for fibers of, anthraquinone)
IT 30599-80-5, Pyridinium, [[[ar-methyl-ar-[[4-(methylamino)-1-anthraquinonyl]amino]benzyl]carbamoyl]methyl]-, chloride 30599-83-8, Ammonium, [[[ar-[(1-amino-4-hydroxy-2(or 3)-anthraquinonyl)oxy]benzyl]carbamoyl]methyl]trimethyl-, chloride 30599-85-0, Pyridinium, 1-[[[6-amino-(5,14-dihydro-5,8,14-trioxonaphth[2,3-c]acridanyl)methyl]carbamoyl]methyl]-, chloride 105043-11-6, 1-[[[[(4-Hydroxy-1-anthraquinonyl)amino]methoxybenzyl]carbamoyl]methyl]pyridinium chloride **105696-39-7**, 1-[[[Methyl[(4-p-toluidino-1-anthraquinonyl)amino]benzyl]carbamoyl]methyl]pyridinium chloride 856593-51-6, Pyridinium, 1-[[[[(4-amino-3-bromo-1-anthraquinonyl)amino]methylbenzyl]carbamoyl]methyl]-, chloride
(preparation of)
IT 5811-83-6, Naphth[2,3-c]acridan
(pyridinium derivs., **dyes**)

L49 ANSWER 42 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1964:441047 HCAPLUS
DOCUMENT NUMBER: 61:41047
ORIGINAL REFERENCE NO.: 61:7172d-f
TITLE: Vat **dyeing** cellulosic textiles
PATENT ASSIGNEE(S): CIBA Ltd.
SOURCE: 12 pp.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

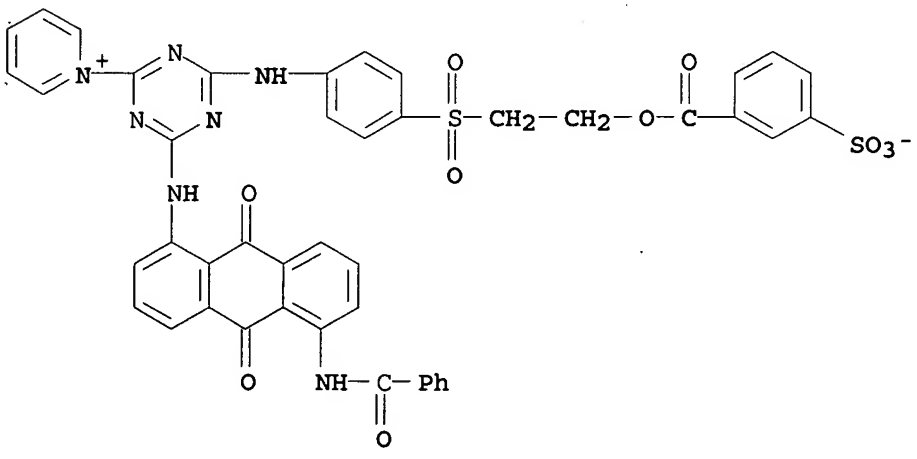
GB 956590 19640429 GB 1961-12460
1961
0406
<--
PRIORITY APPLN. INFO.: CH
1960
0406
<--

AB Addition to Brit. 872,949. Vat **dyes** containing ≥1 group imparting solubility in H2O and ≥1 sulfone group are used. A vat **dye** containing ≥1 hydroxy alkyl sulfonyl group is treated with a sulfating agent, or an aminoanthraquinone is treated with an acylating agent containing a SO2R group, where R is a sulfato alkyl group, or a vat **dye** containing one or more sulfonyl halide or chlorotriazinyl groups is condensed with an amine containing a substituted SO2R group where R has the above meaning, or a suitable vat **dye** containing an alkylenemercapto group having an OSO3H group, preferably in the β-position, is oxidized. Thus, 0.75 part **dye** was pasted in 250 parts H2O. The resulting suspension was added to a solution of 10 parts by volume of 30% NaOH and 6 parts Na2S2O4 in 1750 parts H2O heated to 35°, in which vatting takes place spontaneously. Fifty parts cotton was **dyed** in the resulting **dye** bath for 45 min. at 30-40° with addition of 60 parts of NaCl. The **dyed** cotton was oxidized, washed, acidified, rinsed, and soaped at the boil.

IT **106504-49-8**, Pyridinium, 1-[4-[(5-benzamido-1-anthraquinonyl)amino]-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]-, hydroxide, m-sulfobenzoate (ester), inner salt (preparation of)

RN 106504-49-8 HCAPLUS

CN 1-[4-[(5-Benzamido-1-anthraquinonyl)amino]-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]pyridinium hydroxide, m-sulfobenzoate, inner salt (7CI) (CA INDEX NAME)



IC D06P

CC 47 (Textiles)

IT **Dyeing**
(with sulfone group-containing vat **dyes** with reducing agents)

IT 188-97-6, Anthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline

(derivs., as **dyes**)
IT 101522-85-4, Naphth[2,3-c]acridan-5,8,14-trione, 6-[[4-chloro-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]- 102379-83-9, Anthraquinone, 1-benzamido-5-[[4-chloro-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-, hydrogen sulfate (ester) 106502-80-1, Anthraquinone, 1-benzamido-5-[[4-chloro-6-[p-[(2-hydroxypropyl)sulfonyl]anilino]-s-triazin-2-yl]amino]- **106504-49-8**, Pyridinium, 1-[4-[(5-benzamido-1-anthraquinonyl)amino]-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]-, hydroxide, m-sulfobenzoate (ester), inner salt 106884-20-2, Anthraquinone, 1-[[4-amino-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-5-benzamido-, m-sulfobenzoate (ester) 106884-20-2, Benzoic acid, m-sulfo-, ester with 1-[[4-amino-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-5-benzamidoanthraquinone 107385-21-7, 2-Anthracenesulfonanilide, 5,5''-[(6-chloro-s-triazine-2,4-diyl)diimino]-bis[9,10-dihydro-4'-[(2-hydroxyethyl)sulfonyl]-9,10-dioxo- 107631-43-6, Benzenesulfonic acid, 3,3'-(3,10-dihydro-1,3,8,10-tetraoxoanthra[2,1,9-def:6,5,10-d'e'f']diisoquinoline-2,9(1H,8H)-diyl)bis[6-[[4-chloro-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-, bis(hydrogen sulfate)
(preparation of)
IT 106884-20-2, Benzoic acid, m-sulfo-, ester with 1-[[4-amino-6-[p-[(2-hydroxyethyl)sulfonyl]anilino]-s-triazin-2-yl]amino]-5-benzamidoanthraquinone
(with **dyes**)

L49 ANSWER 43 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1964:425917 HCAPLUS
DOCUMENT NUMBER: 61:25917
ORIGINAL REFERENCE NO.: 61:4522h,4523a-c
TITLE: Quaternary ammonium salts of 2-aminoalkoxy substituted anthraquinones
INVENTOR(S): Katz, Leon; Turetzky, Melvin N.
PATENT ASSIGNEE(S): General Aniline & Film Corp.
SOURCE: 3 pp.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 3125586		19640317	US	1960 0108 <--
DE 1207531			DE	
GB 951734			GB	
PRIORITY APPLN. INFO.:			US	1960 0108 <--

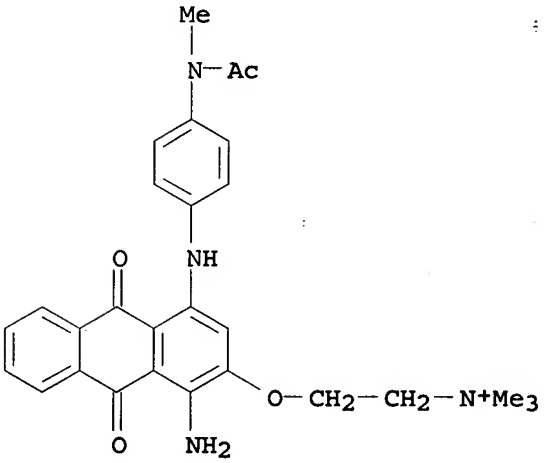
GI For diagram(s), see printed CA Issue.
AB H2O-soluble anthra-quinone **dyes** of formula I, where R is cyclohexyl, Ph, 4-AcNHPh, or 4-AcNMeC6H4, R1 is alkylene, R2 and R3 are Me or Et, R4 is the quaternizing alkyl group, and A- is an anion, **dye** polyacrylonitrile, modacrylic, polyester, and

polyamide fibers lightfast violet shades. Thus, 2 parts Me2NCH2CH2OH was dispersed in 30 parts toluene, and 1.3 parts 50% Na dispersed in toluene added. When evolution of H ceased, 4 parts of the Na salt of 1-amino-2-sulfo-4-(cyclohexylamino)anthraquinone was added, the mixture heated at 80° for 3 hrs., poured into H2O, filtered, washed with H2O until the washings were clear, and dried. The solid (75 parts) was dissolved in 1000 parts C6H6, MeBr passed in until precipitation was complete, and the precipitate filtered, washed with warm H2O, and dried to give bright violet I (R = cyclohexyl, R1 = CH2CH2, R2 = R3 = R4 = Me, A = Br). Other I were prepared similarly (R, R1, R2, R3, R4, and A given): Ph, CH2CH2, Me, Me, Me, Br; Ph, CHMeCH2, Me, Me, Me, SO4; 4-AcNHC6H4, CH2CH2, Et, Et, Me, Br (or SO4); 4-AcNMeC6H4, CH2CH2, Me, Me, Me, Br (or SO4).

IT **856320-53-1**, Ammonium, [2-[[1-amino-4-[p-(N-methylacetamido)anilino]-2-anthraquinonyl]oxy]ethy]trimethyl, bromide
(preparation of)

RN 856320-53-1 HCAPLUS

CN Ammonium, [2-[[1-amino-4-[p-(N-methylacetamido)anilino]-2-anthraquinonyl]oxy]ethy]trimethyl, bromide (7CI) (CA INDEX NAME)



● Br⁻

INCL 260377000

CC 46 (Dyes)

IT **Dyes**
(anthraquinone, bis(H sulfate) of di-derivs., cotton)

IT **Dyes**
(anthraquinone, quaternary ammonium compds. of [(dialkylamino)ethoxy] derivs., polyacrylonitrile, polyester and nylon)

IT Nylon
(**dyes** for)

IT Esters
(**dyes** for fibers from poly)

IT Acrylonitrile polymers (including copolymers)
(**dyes** for fibers of)

IT 101036-03-7, Ammonium, bis[[2-[(1-amino-4-anilino-2-anthraquinonyl)oxy]propyl]trimethyl-], sulfate 101201-27-8, Ammonium, [2-[(1-amino-4-anilino-2-anthraquinonyl)oxy]ethyl]trimethyl, bromide 103652-21-7, Ammonium, [2-[[1-amino-4-(cyclohexylamino)-2-anthraquinonyl]oxy]ethyl]trimethyl, bromide 106303-29-1, Ammonium, [2-[[4-(p-acetamidoanilino)-1-amino-2-anthraquinonyl]oxy]ethyl]diethylmethyl, bromide 107083-88-5, Ammonium, bis[[2-[[4-(p-acetamidoanilino)-1-amino-2-anthraquinonyl]oxy]ethyl]diethylmethyl-], sulfate **856320-53-1**, Ammonium, [2-[[1-amino-4-[p-(N-methylacetamido)anilino]-2-anthraquinonyl]oxy]ethyl]trimethyl, bromide
(preparation of)
IT 82-44-0, Anthraquinone, 1-chloro- 82-46-2, Anthraquinone, 1,5-dichloro-
(vat **dye** from benzamide and)

L49 ANSWER 44 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1963:448884 HCAPLUS
DOCUMENT NUMBER: 59:48884
ORIGINAL REFERENCE NO.: 59:8910a-c
TITLE: Reactive anthraquinone **dyes**
INVENTOR(S): Schoenauer, Wolfgang; Benguerel, Francois
PATENT ASSIGNEE(S): Sandoz Ltd.
SOURCE: 16 pp.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
BE 619084		19621015	BE <--	
GB 1008164			GB	
US 3134785		1964	US	
PRIORITY APPLN. INFO.:			CH	1961 0622

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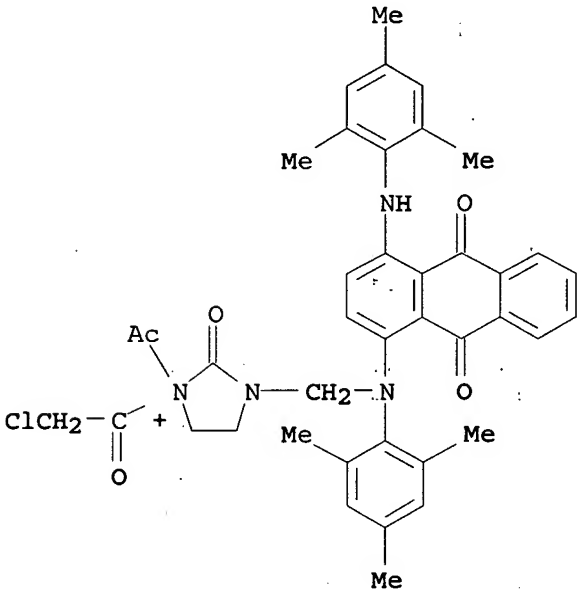
GI For diagram(s), see printed CA Issue.
AB Anthraquinone **dyes** containing at least 1 group of the formula I are suitable for **dyeing** and printing silk, wool, natural and regenerated cellulose, polyesters, acetylcellulose, polyamides, and polyacrylonitriles containing basic groups fast blue and green shades. Thus, 1,4-bis(2,4,6-trimethylanilino)anthraquinone 9.5 was dissolved at 15-20° in 96% H_2SO_4 140, N-(chloroacetyl)-N'-(hydroxymethyl)ethyleneurea (II) 5.5 added at 10-15°, the mixture boiled for 4 hrs., poured onto ice 400 parts, the precipitate filtered, washed with H_2O, dried, and treated at 15-20° with 10-20° oleum to give a **dye**, containing 1.5 l groups per mol., which was blue on wool, fast to light, washing and milling. Similarly, 1,4-di-p-toluidinoanthraquinone 8.4 and II 10 parts gave a green **dye** on wool, fast to washing and milling. Na 1-amino-4-(2,4,6-trimethylanilino)anthraquinone-2-sulfonate 11.6 dissolved in 96% H_2SO_4 200, and treated with II 4.6 parts gave a blue **dye** on wool, fast to washing and milling.
IT **757232-91-0**, 2-Imidazolidinone 1-acetyl-, 1-(chloroacetyl)-3-[[2,4,6-trimethyl-N-[4-(2,4,6-trimethylanilino)-

1-anthraquinonyl]anilino]methyl]-
(mixture containing)
RN 757232-91-0 HCAPLUS
CN 2-Imidazolidinone 1-acetyl-, 1-(chloroacetyl)-3-[[2,4,6-trimethyl-N-[4-(2,4,6-trimethylanilino)-1-anthraquinonyl]anilino]methyl]- (7CI) (CA INDEX NAME)



CC 46 (Dyes)
IT **Dyes**
(anthraquinone, [[3-(chloroacetyl)-2-oxo-1-imidazolidinyl]methyl]-containing, acrylonitrile polymers, cellulose, polyamides, etc.)
IT Acrylonitrile polymers (including copolymers)
Nylon
(**dyes** for)
IT Esters
(poly-, **dyes** for)
IT 2-Imidazolidinone 1-acetyl-, 1-(chloroacetyl)-3-(hydroxymethyl)-
(**dyes** from)
IT 128-80-3, Anthraquinone, 1,4-di-p-toluidino-
(**dyes** from)
IT **757232-91-0**, 2-Imidazolidinone 1-acetyl-, 1-(chloroacetyl)-3-[[2,4,6-trimethyl-N-[4-(2,4,6-trimethylanilino)-1-anthraquinonyl]anilino]methyl]-
(mixture containing)

L49 ANSWER 45 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1961:140173 HCAPLUS
DOCUMENT NUMBER: 55:140173
ORIGINAL REFERENCE NO.: 55:26458d-f
TITLE: **Dyeing** and printing of polyacrylonitrile
INVENTOR(S): Maier, Karl; Eisele, Julius; Federkiel, Wilhelm
PATENT ASSIGNEE(S): Badische Anilin- & Soda-Fabrik Akt.-Ges.
SOURCE: Addn. to Ger. 1,054,959 (See Brit. 824,530, CA

55, 6877b.)
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 1080965		19600505	DE 1958-B51413	1958 1212

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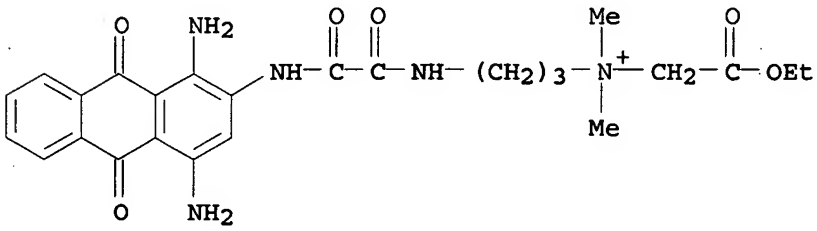
AB Quaternary derivs. of aminoanthraquinonecarboxamides containing at least 1 tertiary amino group in the substituent on the amido N are used to **dye** polyacrylonitrile (I) or acrylonitrile-containing copolymers. The **dyes** are obtained from those described in the main patent by treating with alkyl halides, aralkyl halides, dialkyl sulfates, aromatic sulfonic esters, or halogenacyl amides. For example, 100 g. I fabric was treated for 90 min. at the b.p. with 1 g. 1,4-diaminoanthraquinone-2-carboxylic acid 3-dimethylaminopropylamide-Me2SO4 in 3 l. H2O containing 3 g. 30% AcOH and 0.3 g. AcONa. A blue shade of very good fastness to light and moisture was obtained.

IT **857177-24-3**, Ammonium, (carboxymethyl)[3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl-, chloride, Et ester (acrylonitrile-polymer-fiber **dyeing** and printing with)

RN 857177-24-3 HCAPLUS

CN Ammonium, (carboxymethyl)[3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl-, chloride, Et ester (6CI) (CA INDEX NAME)



● Cl⁻

INCL 8M
CC 25 (Dyes and Textiles)
IT **Dyeing**
(of acrylonitrile-polymer fibers, with aminoanthraquinonecarboxamide quaternary derivs.)
IT Vinyl compounds, polymers
(with acrylonitrile, **dyeing** and printing with aminoanthraquinonecarboxamide quaternary derivs.)
IT Ammonium, [3-(1-amino-4-methylamino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate
Pyrrolidinium compounds, 1-[3-(1-amino-4-methyamino-2-

anthraquinonecarboxamido)propyl]-1-methyl-, methyl sulfate (acrylonitrile-polymer-fiber **dyeing** and printing with)

IT 115985-65-4, Ammonium, [3-(1-amino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate 117862-41-6, 4-[3-(1-Amino-2-anthraquinonecarboxamido)propyl]-4-methylmorpholinium methyl sulfate 121972-78-9, 1-[3-(1-Amino-4-methylamino-2-anthraquinonecarboxamido)propyl]hexahydro-1-methylazepinium methyl sulfate 123885-17-6, 4-[3-(1-Amino-4-methylamino-2-anthraquinonecarboxamido)propyl]-4-methylmorpholinium methyl sulfate 132494-40-7, 4-[3-(1,4-Diamino-2-anthraquinonecarboxamido)propyl]-4-methylmorpholinium methyl sulfate 857012-18-1, Ammonium, [3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl(p-nitrobenzyl)-, chloride 857012-20-5, Ammonium, [4-(1,4-diamino-2-anthraquinonecarboxamido)pentyl]diethylmethyl-, methyl sulfate 857012-22-7, Ammonium, [2-(1,4-diamino-2-anthraquinonecarboxamido)ethyl]trimethyl-, methyl sulfate 857012-24-9, Ammonium, [2-(1,4-diamino-2-anthraquinonecarboxamido)ethyl]diethylmethyl-, methyl sulfate 857012-26-1, Ammonium, [p-(1,4-diamino-2-anthraquinonecarboxamido)benzyl]diethylmethyl-, methyl sulfate 857174-96-0, Ammonium, [p-(1-amino-2-anthraquinonecarboxamido)benzyl]trimethyl-, methyl sulfate **857177-24-3**, Ammonium, (carboxymethyl)[3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl-, chloride, Et ester 860445-25-6, Piperidinium, 1-[3-(1-amino-4-ethylamino-2-anthraquinonecarboxamido)propyl]-1-methyl-, methyl sulfate
(acrylonitrile-polymer-fiber **dyeing** and printing with)

IT 114352-83-9, Ammonium, (carbamoylmethyl)[3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]dimethyl-, chloride
(acrylonitrile-polymerfiber **dyeing** and printing with)

IT 25014-41-9, Acrylonitrile polymers
(**dyeing** and printing with aminoanthraquinonecarboxamide quaternary derivs.)

IT 857012-17-0, Ammonium, [3-(1,4-diamino-2-anthraquinonecarboxamido)propyl]trimethyl-
(salts, acrylonitrile-polymer-fiber **dyeing** and printing with)

L49 ANSWER 46 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1960:59298 HCAPLUS
DOCUMENT NUMBER: 54:59298
ORIGINAL REFERENCE NO.: 54:11493h-i,11494a
TITLE: (1 - Alkylamino - 2 - anthraquinonylcarbonylaminoalkyl)-trialkylammonium salts as disperse **dyes**
INVENTOR(S): Joyce, Asa W.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2924609		19600209	US 1958-741006	1958

0610

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AB The title compds. are useful for coloring acrylic fibers in bluish red shades; they are also useful for **dyeing** acetate, nylon, silk, Vicara, and wool. 1-Nitroanthraquinone-2-carbonyl chloride (9.5 parts) in 75 vols. benzene is treated gradually with 6.3 parts dimethylaminopropylamine (I) at 15-20°, the mixture stirred 1 1/4 hrs., the product filtered off, washed with benzene, dried, slurried in 75 parts H2O, made alkaline with Na2CO3, the product filtered, washed, and dried. The product (5.7 parts) in 60 vols. toluene is treated with 2.7 vols. 70% EtNH2 (II), stirred several hrs. at 85-90°, refluxed to complete the reaction, and solvent evaporated to give 1-ethylamino-2-[N-(dimethylaminopropyl)carbamoyl] anthraquinone (III). III (5.5 parts) in 100 vols. benzene is warmed on a steam bath with 1.5 vols. Me2SO4, the mixture cooled and filtered to give the quaternary salt. Replacement of I in the above example with diethylaminobutylamine and treatment of the resulting **dye** with BuNH2 in place of II and quaternization with EtBr gives a similar **dye**; also replacement of I with dimethylaminoethylamine and treatment with cyclohexylamine and MeI gives a similar **dye.**

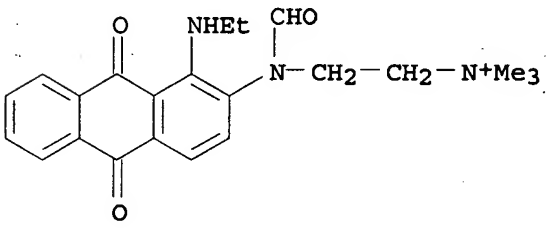
IT **857013-54-8**, Ammonium, [3-(1-ethylamino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate (preparation of)

RN 857013-54-8 HCAPLUS

CN Ammonium, [3-(1-ethylamino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate (6CI) (CA INDEX NAME)

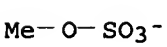
CM 1

CRN 857013-53-7
CMF C22 H26 N3 O3



CM 2

CRN 21228-90-0
CMF C H3 O4 S



CC 25 (Dyes and Textiles)

IT **Dyes**
(anthraquinone 1-alkylamino-2-ω-dialkylaminoalkylcarbamoyl derivs., quaternary compds., acrylic fibers, acetate rayon, nylon, silk, Vicara and wool)

IT Nylon
(**dyes** for)
IT 112044-73-2, 2-Anthraquinonecarboxamide, N-(3-dimethylaminopropyl)-1-ethylamino-
(and quaternary compds. therefrom, as **dyes**)
IT 112554-71-9, Ammonium, (β-p-anisoylphenethyl)trimethyl-
(anthraquinone derivs., **dyes**)
IT 9003-01-4, Acrylic acid, homopolymer
(**dyes** for fibers of)
IT **857013-54-8**, Ammonium, [3-(1-ethylamino-2-anthraquinonecarboxamido)propyl]trimethyl-, methyl sulfate
(preparation of)

L49 ANSWER 47 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1945:13372 HCAPLUS
DOCUMENT NUMBER: 39:13372
ORIGINAL REFERENCE NO.: 39:2076i,2077a-d
TITLE: Betaine esters
INVENTOR(S): Linch, Adrian L.
PATENT ASSIGNEE(S): E. I. du Pont de Nemours & Co.
DOCUMENT TYPE: **Patent**
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2359862		19441010	US 1942-451681	1942 0720

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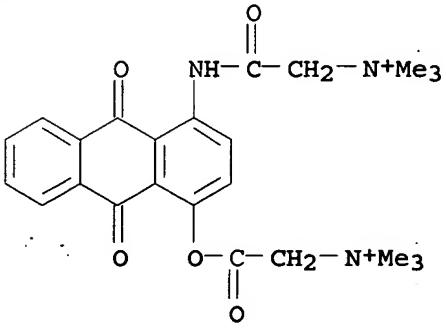
GI For diagram(s), see printed CA Issue.
AB A new class of compds. is obtained by causing a betaine acid halide (I) to react with an organic hydroxyl-containing esterifying agent (II). I corresponds to the formula Me2RN(X)CH2COCl, where R is a hydrocarbon radical and X is the anion of a strong acid. II is chosen from among insol. **dyes** having 1 or more substituted OH groups. The OH occurs preferably in a side chain and is linked with the nucleus by an alkylene radical of no more than 4 C atoms. The azo and the anthraquinone **dyes** contain many members satisfying these requirements. The esterification is carried out in a liquid medium, preferably pyridine. The latter also acts as an acid acceptor. Produced were: betaine methyl ester chloride, Me3N(Cl)CH2COOMe, m. 167° (decomposition); betaine resorcinol ester chloride (a mixture of the mono ester, m-HOC6H4OCOCH2N(Cl)Me3.HCl, and dibetainyl ester), m. 187-9°, β-(ethylphenylamino)ethyl betainate chloride (PhEtNCH2CH2OCOCH2N (Cl) Me3), 6,6'-bis(β-N-chlorobetainoxyethoxy)thioindigo (III), 2-chloro-4,6-dinitro-2'-acetamido-5'-methoxy-4'-[bis(β-N-chlorobetainoxyethyl)amino]azobenzene, 1-[2,5-bis(β-N-chlorobetainoxyethoxy) phenylazo]-2-hydroxy-3-naphthanilide, 1-(N-chlorobetainylamino)-4-(N-chlorobetainoxy)anthraquinone, 2-(N-chlorobetainoxy)-5-methyl-4'-acetamidoazobenzene (colors cellulose acetate, from a weakly acid bath, in bright yellow shades), 2,4-bis(N-chlorobetainoxy)-3-phenylazoquinoline (**dyes** cellulose acetate, wool, nylon, silk, etc., in yellow shades), dodecyl ester of (sulfobenzyl)phenyldimethylammonium acid sulfate ((C12H25O3SC6H4CH2)Me2PhNSO4H), m. 100° (a foaming,

wetting and detergent substance), 2-(N-chlorobetainoxy)-3-naphthanilide, etc. These and similar new compds. are **dyes** made H2O-soluble, **dye** intermediate and starting substances for making other valuable compds.

IT **860533-55-7**, Ammonium, [(4-hydroxy-1-anthraquinonylcarbamyl)methyl]trimethyl-, chloride, ester with (carboxymethyl)trimethylammonium chloride **861089-62-5**, 2-Naphthanilide, 4-[2,5-bis(2-hydroxyethoxy)phenylazo]-3-hydroxy-, ester with (carboxymethyl) trimethylammonium chloride (preparation of)

RN 860533-55-7 HCAPLUS

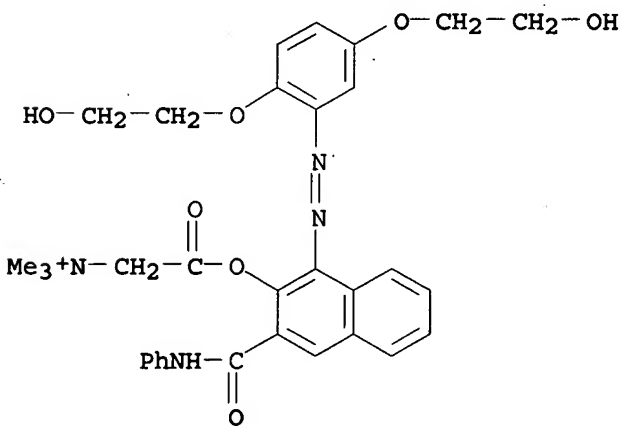
CN Ammonium, [(4-hydroxy-1-anthraquinonylcarbamyl)methyl]trimethyl-, chloride, ester with (carboxymethyl)trimethylammonium chloride (4CI) (CA INDEX NAME)



●2 Cl⁻

RN 861089-62-5 HCAPLUS

CN 2-Naphthanilide, 4-[2,5-bis(2-hydroxyethoxy)phenylazo]-3-hydroxy-, ester with (carboxymethyl) trimethylammonium chloride (4CI) (CA INDEX NAME)



● Cl⁻

CC 10 (Organic Chemistry)
IT **Dyes**
(betaine derivs. of)
IT 854225-90-4, Ethanol, 2-N-ethylanilino-, ester with (carboxymethyl)trimethylammonium chloride 857621-67-1, Acetanilide, p-(6-hydroxy-m-tolylazo)-, ester with (carboxymethyl)trimethylammonium chloride **860533-55-7**, Ammonium, [(4-hydroxy-1-anthraquinonylcarbamyl)methyl]trimethyl-, chloride, ester with (carboxymethyl)trimethylammonium chloride 861089-56-7, 2-Naphthanilide, 3-hydroxy-, ester with (carboxymethyl)trimethylammonium chloride **861089-62-5**, 2-Naphthanilide, 4-[2,5-bis(2-hydroxyethoxy)phenylazo]-3-hydroxy-, ester with (carboxymethyl) trimethylammonium chloride
(preparation of)

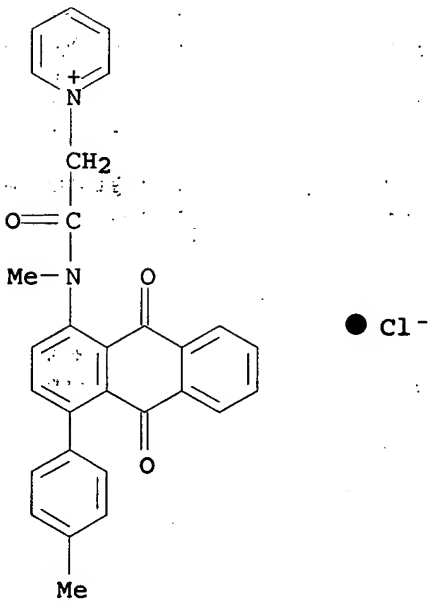
L49 ANSWER 48 OF 48 HCAPLUS COPYRIGHT 2006 ACS on STN
ACCESSION NUMBER: 1944:35031 HCAPLUS
DOCUMENT NUMBER: 38:35031
ORIGINAL REFERENCE NO.: 38:5215d-i,5216a
TITLE: Anthraquinone derivatives. I. Several anthrapyridones
AUTHOR(S): Dupont, Raoul A. A.
SOURCE: Bulletin des Societes Chimiques Belges (1943), 52, 7-20
From: Chem. Zentr. II, 1367-8(1943).
CODEN: BSCBAG; ISSN: 0037-9646
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable
AB 1-(Methylamino)anthraquinone (I) and its 4-Br derivative (II) yield a tri-Br derivative (III); whereas II is very stable, III is easily decomposed. The Ac compds. of II and its derivs. on cyclization yield anthrapyridones. N-Methyl-1(N), 9-anthrapyridone (IV) (10 g.) in 45 cc. PhNO2, gradually treated with 3.8 cc. SO2Cl2, gives the 3'-Cl derivative (V), m. 254-7°. V (5 g.) in 50 cc. C5H6N, heated several hrs. and the product crystallized from H2O containing a little NaCl, gives the compound C22H16O2N2Cl, yellow crystalline powder; 2-picoline yields a light green powder. Acetylation and cyclization of II yield 4-bromo-N-methyl-1(N), 9-anthrapyridone (abstract gives pyridine) (VI), m. 278°. Chlorination of VI in AcOH gives the 3-Cl derivative (VII), yellow, m. 297°; C5H5N gives the compound C22H14O2N2BrCl, yellow; 2-picoline yields an analogous condensation product. VI (30 g.), 250 g. p-MeC6H4NH2 and 20 g. AcOK, heated 6 hrs. at 165°, the product poured into 2 l. 10% HCl and crystallized from PhNO2, give 4-p-tolylamino-N-methyl-1(N), 9-anthrapyridone, violet, m. 270° (decomposition); SO2Cl2 in PhNO2 gives a Cl derivative, m. 260°, which yields a C5H5N condensation product, m. 273°. The 4-p-tolylamino derivative (VIII) of I (10 g.) and 20 cc. Ac2O, heated several hrs. at 120°, give 1-methylacetamido-4-p-tolylaminoanthraquinone, red-violet (from PhNO2), m. 201°; VIII (9 g.) and 3 cc. ClCH2COCl in 5 cc. PhMe, heated 1 hr. at 100°, give 8.5 g. of the 1-chloroacetylmethylamino derivative, violet, m. 188-90°; heating with C5H5N gives 4-p-tolylaminoanthraquinonylmethylacetamido-ω-pyridinium chloride, C29H24O3N3Cl. II (10 g.) in AcOH at 100°, treated during 2 hrs. with 1.8 cc. Br, gives 10 g. of the di-Br derivative, m. 168°; Ac2O causes a partial decomposition of the base; ClCH2COCl gives a chloroacetyl derivative, m. 251°. I (10 g.) and 0.7 (?) cc. Br in AcOH, heated 1 hr.

at 100°, give 14 g. of III, m. 214-17°; 10 g. II and 3.5 g. Br in AcOH also give III. III (10 g.) and 20 cc. Ac2O with 0.2 cc. concentrated H2SO4, heated 2 hrs., give the Ac derivative, yellow-brown, m. about 190°; chloroacetylation gives an impure product because of partial decomposition of III. An attempt to prepare a tetra-Br derivative of I gave an indefinite product. The bromination of IV or VI in AcOH or PhNO2 introduces 1-2 atoms Br, nearly all of which is split off by heating at 150°. The quaternary C5H5N salts of V and VII are strong photographic dispensers but cause fogginess. The replacement of the Cl in V and VII by OH or SO3H gives weak desensitizers. Alizarin-Astrol B (IX) (10 g.) in 30 cc. AcOH, heated 4 hrs. and 1 g. of the violet Ac derivative in 10 cc. EtOH, heated 6 hrs. with 0.5 cc. concentrated NaOH, gives the pyridone derivative, deep violet; the pyridone derivative of Alizarin-Rubinol R (X) is rose-red, absorption maximum at 545 mμ; that from Alizarin-Geranol B is red, that from Anthraquinone Violet is brown and that from Alizarin G is violet, absorption max 660 mμ. In an attempt to transform IX into X, IX was acetylated and cyclized; the resulting product was not X. The dipyrones are acid wool **dyes.**

IT **861029-01-8**, Pyridinium, 1-[[methyl(4-p-tolyl-1-anthraquinonyl)carbamyl]methyl]-, chloride
(preparation of)

RN 861029-01-8 HCAPLUS

CN Pyridinium, 1-[[methyl(4-p-tolyl-1-anthraquinonyl)carbamyl]methyl]-, chloride (4CI) (CA INDEX NAME)



● Cl^-

CC 10 (Organic Chemistry)

IT **Dyes**
(Alizarin Astrol B, pyridone derivs.)

IT **Dyes**
(Alizarin G, pyridone derivs.)

IT **Dyes**
(Alizarin Geranol B, pyridone derivs.)

IT **Dyes**

(Alizarin Rubinol R, pyridone derivs.)

IT **Dyes**
(alizarin dipyridone, acid, wool)

IT 81-85-6, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 6-bromo-3-methyl- 6535-64-4, Anthraquinone, 1-(N-methylacetamido)-4-p-toluino- 51945-32-5, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 1-chloro-3-methyl- 854397-65-2, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 6-bromo-5-chloro-3-methyl- 854397-66-3, 2-Picoline, compound with 6-bromo-5-chloro-3-methyl-7-dibenz[f,ij]isoquinoline-2,7(3)-dione 854397-66-3, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 6-bromo-5-chloro-3-methyl-, 2-picoline 854397-68-5, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 6-bromo-5-chloro-3-methyl-, compound with pyridine 854398-97-3, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 3-methyl-4-p-toluino- 854399-17-0, 7-Dibenz[f,ij]isoquinoline-2,7(3)-dione, 1-chloro-3-methyl-, compound with pyridine 860528-88-7, Anthraquinone, 1-(α-chloro-N-methylacetamido)-4-p-toluino- **861029-01-8**, Pyridinium, 1-[[methyl(4-p-tolyl-1-anthraquinonyl)carbamyl]methyl]-, chloride
(preparation of)